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IT TAKES A VILLAGE
Together, we can help
both people and the
planet—to be healthier.
Learn the Life Time
CEO's plan for the future.
BY LAUREN BEDOSKY

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LAURIE MCCARTNEY, PRESIDENT

TAKE FIVE

CHECK OUT FIVE OF OUR FAVORITE HIGHLIGHTS FROM THIS ISSUE!

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How to help future mothers and their babies to be safe, healthy and fit during pregnancy.

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A look at this new full-body HIIT format.

WE ARE STRONGER TOGETHER

As we bring you this issue of *American Fitness*, I am inspired by how strong the fitness industry is and how we continue to grow. But strength is about more than size. Our real strength grows from the collective of what each of us brings to our community—and the support we offer each other as we pursue a healthier future for ourselves and our clients.

Being strong doesn't mean you have to be big. Ponder how relevant this statement actually is for us and all its potential meanings! It applies to the science behind developing maximal strength and the myth that women will get “big” if they lift...the results of HIIT group exercise class formats like STRONG™ by Zumba...the perseverance of clients who we help to attain a healthier weight or prepare for their upcoming role of motherhood. The word *strong* has so many relevant and interchangeable uses. (You'll see many of these throughout this issue.) And though there *is* strength in numbers, each of you is living proof that one person can make an incredible impact on so many others.

Strength is also about endurance. Both AFAA and NASM have shown this quality since the inception of the fitness industry. AFAA has been a key group fitness player for over 34 years, and this year, NASM is celebrating its 30th anniversary milestone. Think back to how different our industry was 30 years ago! The spaces of the health club were defined by men pumping iron and women in the aerobics room (with pregnant women nowhere to be seen). All that has changed, and additional transformations are on the horizon, as you'll read in our cover story about Life Time founder and CEO

Bahram Akradi. His forward-thinking has shifted the health club landscape to expand its focus from fitness to an all-encompassing healthy lifestyle. We are looking forward to his keynote on October 13 on the Evolution of Fitness at the NASM Optima 2017 Conference (www.nasmoptima.com) October 12-15.

We are excited that you are so actively engaging with us and our community on our social media channels (listed below). That makes us stronger and better, too. You have personal and professional triumphs, strategies you've used to help clients succeed, and posts that continually inspire us all to make a positive impact and achieve even more.

We look forward to our continued conversations and how we can strengthen each other, our community and our clients as we pursue a healthier future. See you on Facebook and Instagram!

Yours in health,

Laurie McCartney
President – Global Fitness & Wellness Solutions



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Training Edge [INDUSTRY NEWS, INSIGHTS & TOOLS]

NASM PROS: THE NBA'S GO-TO TRAINERS

Michael Oviedo has spent much of his career as a personal trainer to celebs, execs and athletes, including Kobe Bryant of the Los Angeles Lakers, who made Oviedo his exclusive practitioner on his 2015–16 farewell tour (see inset photo of Bryant with Oviedo and his family).

“When working with an athlete, instructors might think that they should add more resistance or weight during sports-specific skill training. That’s not what you want to start with,” says Oviedo, MS, LMT, NASM-CPT, CES, PES and director of clinical services at the Sports Performance Center at The Star in Frisco, Texas. If an athlete is out of alignment, piling on weight will just increase the risk of injury. “The intake part—the assessment—is really important. That preps your client down the road to be a better, stronger, faster athlete.” His top tips:

Go beyond OHSA. This and the single-leg squat assessment provide a good start, but consider other tests, too. For the vertical-jump test, don’t just record height; watch how the athlete lands. The Landing Error Scoring System (LESS) test—explained in the NASM-CES and PES courses—highlights 17 points where movement can break down before, during and after a jump.

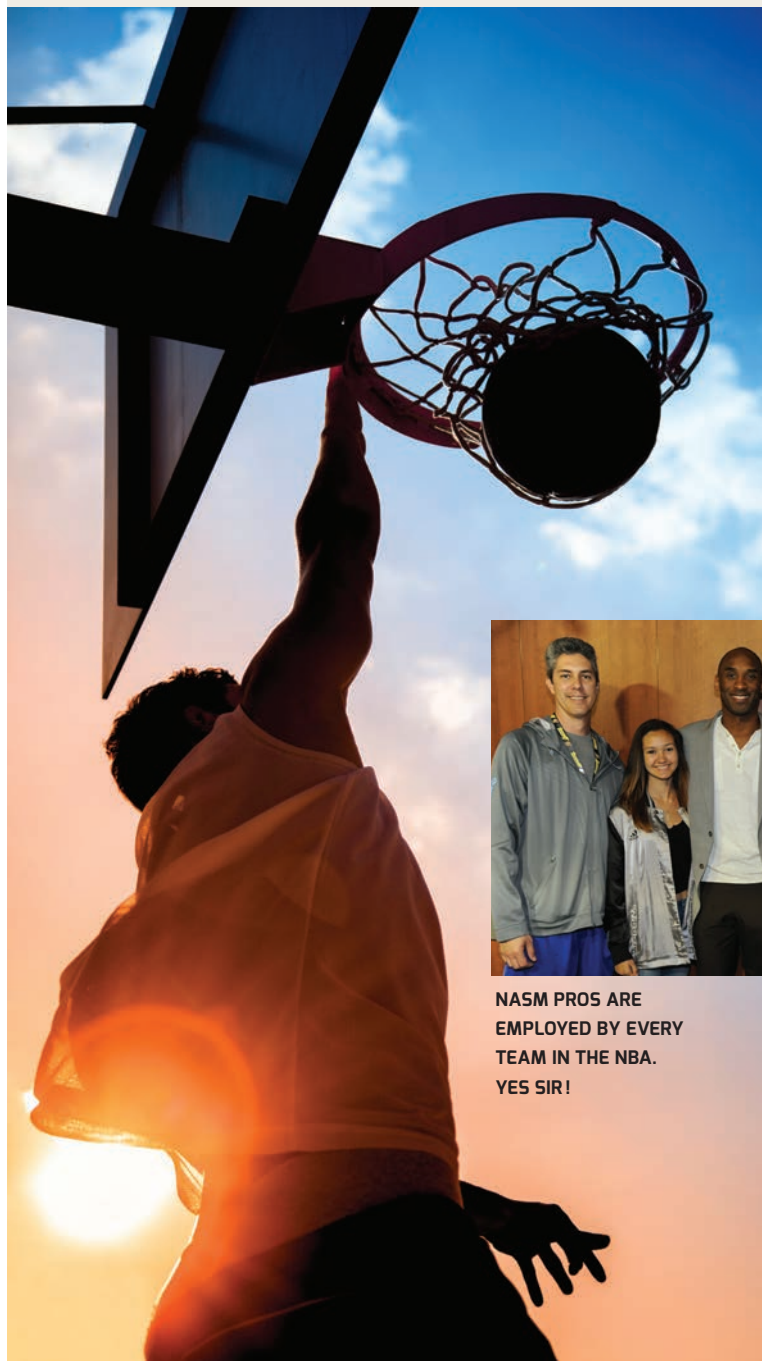
Assess and correct before game play. “Before every game, I would literally get Kobe up on the table and use a goniometer and move those joints around to see what needed to be addressed,” he

says. The one time Oviedo couldn’t do this, Bryant tweaked his back and took 3 days to recover. “After that, I was with him for every game,” says Oviedo.

Read clients’ signals. “The recovery piece is as important as the training piece,” he says. “If they’re worn out and tight, you don’t want to train them again.” Scrap your original plans if it’s not what the athlete needs that day.

Don’t just cue; inform. Yes, you want to cue the athlete throughout each exercise, but also *explain* what you’re doing. (Why, for instance, you’re having them stand on one foot and balance.) “You want them to start understanding how their body is responding,” he says.

Be a lifelong learner. Oviedo has a BA in physical education and an MS in exercise science, in addition to the NASM certification and specializations, and training in the Fusionetics Performance Health System. He also earned his massage therapy certification so he could do the soft-tissue work that was out of scope for him as a CPT. “Don’t rest on your laurels,” he advises. “Learn as much as you can about human movement science, and stay on top of the research.”



NASM PROS ARE
EMPLOYED BY EVERY
TEAM IN THE NBA.
YES SIR!

5 Ways to Stop the Spread of Gym Germs



IN A 2016 STUDY BY FITRATED.COM, FREE WEIGHTS WERE FOUND TO HAVE 362 TIMES MORE GERMS THAN A TOILET SEAT.

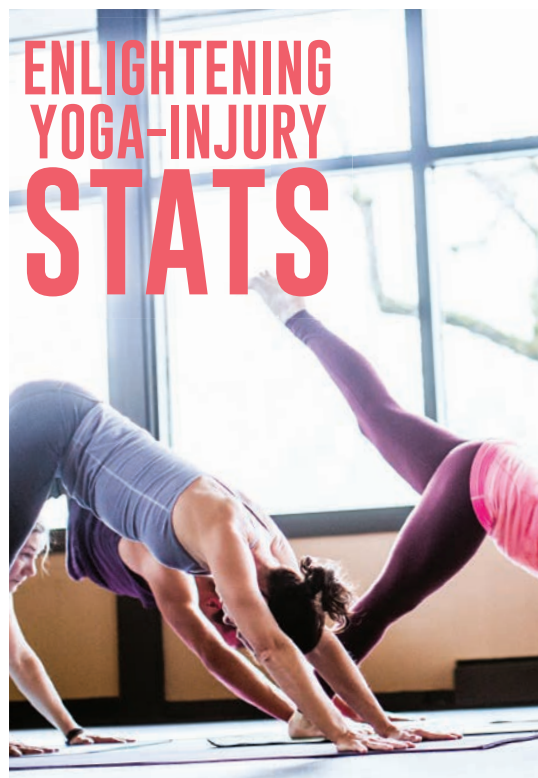
Humans aren't the only ones "on" the exercise equipment. Microbiologist Charles Gerba, PhD, says numerous studies have found weights, machines, doorknobs and other surfaces teeming with microscopic trespassers such as cold and flu viruses, E. coli and MRSA. But don't freak out: The University of Arizona professor says using disinfectant wipes and hand sanitizer a few times a day is an easy way to break the germs' "cycle of movement." In a study Gerba co-authored in 2013, a virus was spread from one infected worker throughout half of an office building in just 4 hours. Here, Gerba's tips for avoiding gym germs:

1. Use **disinfectant wipes** on often-touched objects at the gym and anywhere else you go (airline tray tables, he says, are particularly gross). Unlike spray cleaners, these wipes "provide the right dose of disinfectant

I mean...we love yoga. Research finds that, in addition to building strength and flexibility, yoga can reduce lower-back pain, heart rate and blood pressure, and it may help people with anxiety, depression and insomnia. But it's not without its risks. A recent review of U.S. injury reports found that 29,590 hospital emergency room visits from 2001 to 2014 were due to yoga-related injuries. Study authors Thomas A. Swain, MPH, and Gerald McGwin, MS, PhD, from the University of Alabama, Birmingham published these findings in *Orthopaedic Journal of Sports Medicine* [2016; 4 (11), 2325967116671703], noting that the number of injuries has been growing over that same time period and that the highest injury rate is in the over-65 age group.

In *Yoga Journal*, McGwin theorized that, among other things, "More people perhaps are gravitating toward yoga who are not more prepared, or teachers or the studios that are opening perhaps aren't at the level they should be."

If yoga is part of your programming, ensure instructors are well-trained and older adults, in particular, have gained clearance from their physician. For all ages, modifications should be shown for each pose; see sidebar on page 68. Want to learn how to lead a safe, challenging multilevel yoga class in a variety of settings? Check out the AFAA Practical Yoga Instructor Training course: <https://www.afaa.com/courses/practical-yoga-instructor-training>.



every time,” he says. Use them on treadmill displays, elliptical handles, weight benches and even *personal* equipment such as yoga mats. They can pick up germs if you use them in a common area.

2. Don't put **athletic shoes** on your desk or stuff them in your gym bag with clean clothes. Most shoes have E. coli on their soles.

3. Choose a screw-top **water bottle**, not the flip-top kind, which allows bacteria to transfer from your fingers to the spout every time you open it. Wash it in the dishwasher to kill germs.

4. Never share **towels**. “Blood-borne diseases have been transmitted to family members through sharing of towels,” says Gerba. Wash all dirty towels, gym clothes and underwear in hot water.

5. If you catch a **cold virus**, stay home for at least the first 2–3 days, which is when you're most contagious. A co-worker is sure to prefer covering your class over catching your germs.



TRUNK SPRAINS AND STRAINS ACCOUNT FOR THE MAJORITY OF YOGA INJURIES. A FEW MODIFICATIONS CAN HELP KEEP PRACTITIONERS SAFE.

THREE CHEERS FOR COACHING STUDENTS ABOUT PROPER REST: MAKING A DIFFERENCE IS EASIER THAN YOU'D DREAMED WAS POSSIBLE.



Put “Sleep” on Young Athletes’ Training Plans

College athletes need a minimum of 8–9 hours of sleep per night, say experts.

Less may reduce physical and mental performance on and off the court. It can also slow injury recovery because the body repairs itself during sleep.

Last year, researchers discovered simple interventions that can significantly improve student-athletes’ sleep. Michael Grandner, assistant professor of psychiatry and psychology and director of the Sleep Health Research Center at the UA College of Medicine, and Amy Athey, director of clinical and sport psychology services for Arizona Athletics, created Project REST (Recovery Enhancement and Sleep Training). They enrolled 40 student-athletes in the program, which included a 2-hour education and Q&A kickoff session, using a FITBIT® sleep tracker, sleep diaries, text-messaged sleep facts and 24/7 access to support. But the initial sleep-facts seminar had the biggest impact, say participants. The message here: In addition to discussing nutrition and sports performance with young athletes, you may want to talk about how sleep can affect their game. Visit the website of the National Sleep Foundation (sleepfoundation.org) for Healthy Sleep Tips on sticking to a sleep schedule, creating a bedtime ritual and making a bedroom (or dorm room) more conducive to sleep.

Improve Deadlift Form With These



“The deadlift movement is one of the more difficult compound exercises to teach because there are many areas where form can break down,” says Mike Fantigrassi, NASM-CPT and Master Instructor. Here are his thoughts on cuing this move:

Start with stabilization. When you follow the NASM Optimum Performance Training™ model, start with Phase 1: Stabilization. This can help clients avoid most form breakdowns because they will practice the exercise with higher reps and with a slow tempo that will lock in good form.

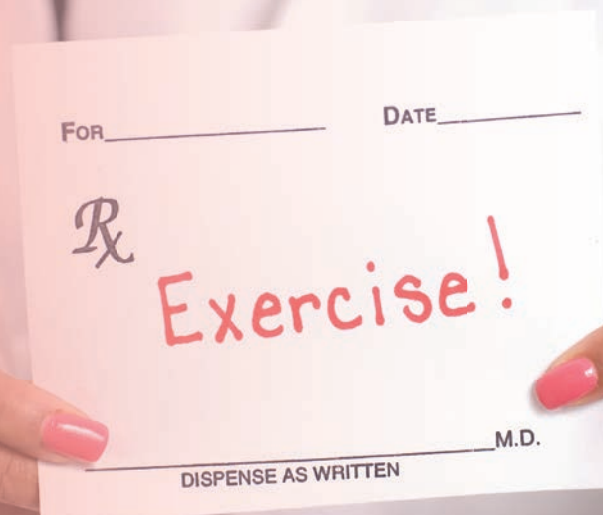
Build strength and good form. Before doing deadlifts, use planks, cobras and floor bridges to prep. Planks teach how to draw in, activate the core, and brace. Cobras require pulling shoulder blades back and down. Floor

EXERCISE, NOT OPIOIDS

We often think of exercise as lengthening lifespan by reducing disease risk. But it may also help prevent accidental opioid overdoses. This year, the American College of Physicians published recommendations reminding doctors that nondrug options should be the first-line treatments for acute or subacute lower-back pain [2017; 166 (7), 514–530]. These included tai chi, yoga, motor-control exercise, massage, acupuncture, progressive relaxation and others.

“Physicians should consider opioids as a last option for treatment and only in patients who have failed other therapies, as they are associated with substantial harms, including the risk of addiction or accidental overdose,” says ACP President Nitin S. Damle, MD, MS, MACP.

IN 2012, ENOUGH OPIOID PRESCRIPTIONS WERE WRITTEN TO GIVE EVERY AMERICAN ADULT THEIR OWN BOTTLE OF PILLS (AMERICAN SOCIETY OF ADDICTION MEDICINE, OPIOID ADDICTION: 2016 FACTS & FIGURES).



Moves

bridges use the hip-hinge movement that's done at the top of the deadlift.

Next, try the Romanian deadlift, which emphasizes the top portion of the traditional deadlift movement pattern so the client won't turn the move into a squat. "People who are really good at squatting are usually not good at the deadlift, and vice versa," notes Fantigrassi.

Keep the bar close. During the part of the deadlift where the bar is dragged up toward the knees, it should almost graze the shins. If it's too far forward, balance shifts to the toes. If this is a real problem, try a trap-bar deadlift, which has clients step inside the bar, making it easier to stay balanced.

Watch the lower back. "When you see overarching or rounding, stop the movement and regress it," says Fantigrassi. The back (and the neck) should stay in a neutral position during the exercise.

Check breathing. The client should grab the bar, inhale, hold breath while standing up, then exhale near the top of the move. Breathing should take place in the bottom and top positions of the movement. "You want air in the lungs while lifting and lowering to help stabilize the core," he says. Timing of breathing becomes more important as the load increases.

Finish strong. If she is doing a full deadlift, make sure her hips don't come too far forward at the top (hyperextending the back). But make sure she finishes the move, pauses and squeezes the glutes (and breathes) before starting the descent.



LAURA QUAGLIO gets her mental exercise interviewing experts on everything from atherosclerosis to Zumba. She's also

a wife, mom, 2nd-degree black belt, and costume designer.

WITH ITS FLAGSHIP PROGRAM, CSS GROUP FITNESS CAN SET UP A FULL-BLOWN CYCLING CLASS FOR UP TO 30 PEOPLE—ANYTIME, ANYWHERE, INCLUDING IN A FIELD, PARKING LOT OR MALL CONCOURSE.



Taking Fitness *on Tour*

When Wayne Snyder founded CSS Group Fitness in 2013, he named it for the three pillars of its well-rounded fitness program: cardio, strength and stretch. Though CSS is based in northeastern Pennsylvania, you won't find a gym address on their website. "As a mobile fitness company, we bring all our fitness programs directly to the customer, wherever they might be," says Snyder. "As our slogan states: *We bring fitness to you!*" What started out as one fitness truck with one instructor and one client has flourished into a 10-instructor operation serving a dozen medium-to-large corporate accounts and multiple public locations. Some businesses fund it 100% for employees, while others simply provide space. In public venues, clients pay per session or buy discounted bundles. "The time we save clients by bringing our program to the workplace or local mall is precious to them," says Snyder.

Here are some lessons learned from life on the road.

- **HANG OUT BEFORE AND AFTER.** Building a community can be challenging without a "community building." Amanda Grant, AFAA-CPT and indoor cycling and Pound® Pro instructor for CSS, arrives 20 minutes before each class to catch up with regulars and introduce them to new participants. "At the conclusion, I'll stick around to answer questions," she says. "All of this creates a warm sense of belonging and keeps our people coming back."
- **USE BRANDS TO BUILD INTEREST.** Branded programs give instant street cred: All CSS instructors are certified by AFAA, NASM and/or in the disciplines they teach, including various bootcamps, Pound, YogaFit®, Zumba® and the AFAA course G.E.A.R. Indoor Cycling.
- **POINT OUT ADDED PERKS.** Corporate workouts build camaraderie that carries through the workday, and clients report increased productivity. "They don't experience that afternoon-low-blood-sugar fog," says Snyder.
- **MAKE IT DOABLE.** People often feel overwhelmed by nutrition info, so Snyder's team usually keeps it simple, suggesting cutbacks on high-calorie, low-nutritive foods.

Most of all, says Grant, the business model has taught her to expand her horizons—geographically and personally. "As a CPT, I didn't like public speaking or being on a microphone teaching a class, but I put myself out there and now I'm really enjoying it," she says. "You can't just stay in your comfort zone. Expand your marketability. Try something new that might make you a little bit nervous."

FORCE OF HABIT: How Behavior Change Science Impacts Success

Understanding the principles of behavior change helps fitness professionals deliver long-lasting results and build a strong training business.

BY SHIRLEY ARCHER, JD, MA

Fitness pros know successful training programs require time, progression and individualization. Yet trainers often have clients who just don't achieve their goals—they fail to lose weight or they give up after a few months—despite nutrition and fitness programming grounded solidly in science. Given our dedication to empowering our clients to make positive life changes, this can be disappointing or even maddening. Why does this keep happening?

The answer lies in the science of behavior change. Significant research findings show that behavior change strategies are essential to helping people adopt the habits required to reach health and fitness goals and to improve life quality.

It's not enough for a client to decide to lose 25 pounds or to sign up for training three times per week. Each individual requires specific support. For example, a client may need to learn what foods to eat and what triggers him to overeat.

She may need help mastering the best exercises and discovering how to avoid making excuses for not training.

The bottom line is that even when people say they want to be healthier, they need specific reinforcement to overcome counterproductive habits and attitudes—and they need to understand how those old patterns developed in the first place.

Fitness facility owners and managers, program directors, group fitness instructors and personal trainers who learn how to provide this behavior change support can become more effective drivers of



Program Yourself to Be an Agent of Change

The NASM Behavior Change Specialization

Learn the nuances of what makes people tick.

You don't need to be a licensed psychologist to effect positive behavior change. What you do need, however, is a basic understanding of how to motivate people to change health and fitness habits. Learn practical evidence-based principles and specific intervention techniques in the NASM Behavior Change Specialization (BCS).

This course shows you how to:

- Pinpoint motivational triggers and determine your clients' greatest barriers to change.
- Apply the appropriate intervention techniques aligned with your clients' personality, and identify their ability to change.
- Design programs that can yield quicker, more effective results, and help to raise client retention.
- Adjust training methods as your clients progress in their training.

change—boosting client retention, creating business opportunities and helping people to achieve lasting success. Here's an introduction to the science that can help make that happen.

Defining Behavior Change Science

Behavior change science explores evidence-based methods that promote healthy behaviors, such as staying physically active, maintaining a healthy weight, and abstaining from tobacco and excessive alcohol use. Perhaps the best way to understand it is to see how it can be applied.

BEHAVIOR CHANGE SCIENCE IN ACTION

Bill Ross, NASM-CPT and Master Trainer and a health and life coach in Denver, shares this client story to illustrate how to apply behavior change science to fitness training:

Courtney* wanted to lose 180 pounds. She was an emotional eater with major fears of exercising in a gym. Ross and Courtney first addressed emotional eating. Courtney wrote down her thoughts and memories when she felt like she needed to eat. This activity helped Courtney realize every time she felt sad or upset as a child, she was given food. Understanding that

she often ate when she wasn't actually hungry enabled her to identify her eating triggers and change this behavior.

Ross and Courtney also addressed her fear of being judged when exercising in front of others. He scheduled every training session for Courtney when a lot of people were around and kept Courtney's focus on the workout. After six sessions, Ross asked Courtney if she had noticed a person wearing a funny outfit. She answered no and realized that if she didn't notice that person, no one else was watching or judging her either. After 18 months of training, Courtney lost 160 pounds and changed her life forever.

Courtney's example shows that applying behavior change principles goes well

beyond offering motivation and positive support. Courtney needed specific insights on the habits and ways of thinking that prevented her from achieving her fitness and weight loss goals. This case study also demonstrates how important it is to be specific when applying behavior change science, while making the information relatable rather than clinical.

BEING SPECIFIC—AND SCIENTIFIC

"Using scientific principles of behavior change

consists of knowing a client well, understanding the driving forces behind all behavior and [applying] the specific tactics a trainer can use to get results," says Erin A. McGill, MA, NASM-CPT,

WHAT'S IN THE COURSE

The NASM-BCS is delivered completely online.

The training includes:

- online course
- ebook
- video lectures
- learning activities
- quizzes
- final online exam

For more information, go to www.nasm.org/BCS.



Behavior change strategies are evidence-based methods used to promote healthy behaviors, helping people adopt the habits required to reach their health and fitness goals.

* Name changed for client confidentiality.

Case Study: John's Transformation

Russell Wynter, NASM-CPT and Master Trainer, and co-owner of Madsweat in Scottsdale, Arizona, shares this client story:

John* had an annual company physical and learned that he had high blood pressure, high cholesterol and prediabetes. He needed a life change. Wynter and John sat down together and made SMART goals (Specific, Measurable, Attainable, Realistic, and Timely—short- and long-term). Short-term goals included: Train three times per week, add 30 minutes of mountain biking twice per week and plan to increase riding to five times per week and increase time to 60 minutes. John's long-term goal was to compete in a mountain bike race—an unfulfilled dream of his.

In 1 year, John not only accomplished his long-term goal of competing in a mountain bike race, but also brought all of his health screening scores back into normal range. Applying behavioral change techniques in John's case not only fulfilled his dream—it transformed his health and life quality.

* Name changed for client confidentiality.



senior director of product development for NASM and AFAA. “It’s the difference between telling a client, ‘Do some cardio and do some pushups this week,’ versus, ‘We’re going to do resistance training in a circuit-style format three times this week. Each session will be total-body exercises ... and we will make sure you get benefits from both strength and cardiorespiratory training.’” As McGill points out, instead of relying on intuition, trainers can use proven methods of behavioral therapy to help people to change bad habits for good.

PUTTING A FRIENDLY SPIN ON THE SCIENCE

“One misunderstanding by fitness professionals is that behavioral change science is very clinical,” says Russell Wynter, NASM-CPT and Master Trainer, and co-owner of Madsweat in Scottsdale, Arizona. “I found that my clients respond better when it’s kept light.”

Applying behavioral science is just one part of the process to help make clients succeed, Wynter says. Using the NASM-BCS, an educational program on behavioral change science (see the sidebar on page 13), “gives us a systematic way to take our clients through making changes by using simple strategies that they can implement on a daily basis.” However, fitness professionals can choose to share that information in a way that feels personalized and friendly, not clinical.

Theories of Behavior Change

Behavioral change scientific theories look at reasons underlying *why* people do what they do. *Cognitive behavioral theory* and *social cognitive theory* are most relevant to fitness and weight loss. CBT focuses on internal cues and the individual’s role in altering their own negative perceptions, while SCT uses the external influence of positive social cues to inspire and support change in an individual.

DEFINING COGNITIVE BEHAVIORAL THEORY

People respond to their perception of a situation—not the objective facts. Cognitive behavioral theory, therefore, focuses on how a person’s thoughts, emotions and behaviors are connected and affect one another. For example, eating in response to

feelings of sadness or distress—instead of hunger—reveals the connection between emotions and behavior.

Cognitive behavior interventions help people identify thinking patterns that trigger these kinds of feelings so they can change the targeted behaviors (NASM 2014). In a cognitive behavioral study with 316 participants with obesity, intervention group subjects learned goal-setting, action-planning, barrier-management and self-monitoring strategies. At a 2-year follow-up, investigators found that those who had learned these skills continued to lose weight, maintain exercise and follow healthy eating habits (Göhner et al. 2012).

DEFINING SOCIAL COGNITIVE THEORY

People learn behaviors in social contexts and become influenced by personal and environmental factors. For example, if you see a role model do something, you're much more likely to do it yourself. *Self-efficacy*—a person's confidence to take actions to achieve goals regardless of obstacles—is another important aspect of this theory. Goal setting and positive reinforcement, therefore, are tools of this method to boost self-efficacy and increase the likelihood of successful behavioral change. For lasting weight loss and increased physical activity, social cognitive theory is the most-often-applied behavioral health theory in research studies (Joseph et al. 2016).

McGill offers an example of how a personal trainer would apply this method. "The trainer would say, 'We're going to work on your goals. Goal setting is important for a number of reasons. I want you to do the first draft, and then we will review them together next session. Think about your end goal and the things you have to do to get there. These are process goals.' Then, after goals have been set and are achieved, the trainer would offer the following: 'You did great this month and hit your goals. Your homework is to write up what was different and how it made you feel.'"

Cognitive behavioral interventions help people identify thinking patterns that trigger negative perceptions so they can change the targeted behaviors.

This example illustrates how a trainer can use positive coaching, goal setting and positive reinforcement. These tools build a client's self-confidence to achieve fitness and weight objectives. The trainer can help a client understand the specific behaviors they need to accomplish goals and to increase the chances of long-term success.

A "Change" That's Worth Making

Applying these theories to your own fitness training can be straightforward and ultimately make the difference between success and failure. "Incorporating behavior change principles with exercise science programming increases a trainer's value to each client, not only monetarily, but also as the expert who can help a client change behavior patterns that may have existed since childhood," Ross says. "My client success rate increased from 65% to 98% by implementing behavior change in training programs."

For fitness professionals who want to make a lasting impact on a client's life and health, understanding behavioral change science may be the ultimate key.



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SHIRLEY ARCHER, JD, MA, award-winning certified trainer and author of 15 books, worked as a health educator, lecturer and trainer for the Health

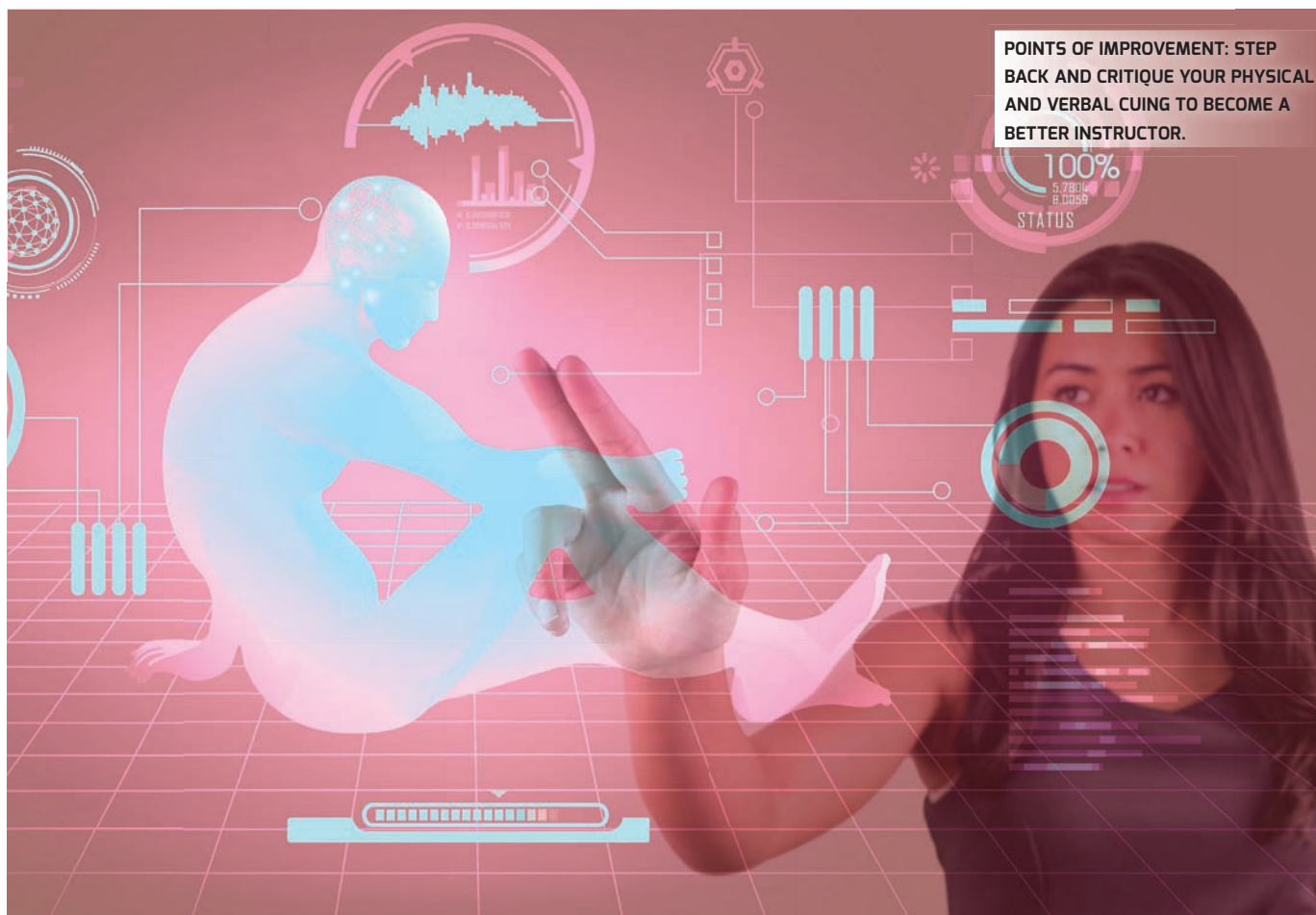
Improvement Program at Stanford University for 15 years. Reach Shirley at www.shirleyarcher.com, @shirleyarcher (Twitter), @shirleyarcher (Instagram) and @shirley_archer (Pinterest).

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AN INTELLIGENCE ANALYST'S GUIDE TO COMMUNICATION

What I learned while advising U.S. policymakers can help you be more effective and confident with clients.

BY ABIGAIL KEYES

What can a group fitness instructor or personal trainer learn from an intelligence analyst? A lot!

In my 8 years as an analyst and writer for the U.S. intelligence community, I learned how to convey important information quickly and efficiently to some of the country's top policymakers. Sometimes I had to tell them, politely, that they were wrong. No pressure!

Other times I didn't have an immediate answer for a tough question. With clients who made foreign policy decisions that affected global politics, it was imperative that I deliver information quickly and accurately. The stakes were high—one misinterpreted message could have led to

a string of poor policy decisions (Petersen 2011). I also learned a lot about how to manage egos, including my own.

Thankfully, my work today as a group dance and fitness instructor isn't quite as stressful, but I still call on much of what I learned as an analyst to be engaging,

humble and accurate. Whether I'm working with a client one-on-one or leading a ballroom with over 100 participants, these analytical, briefing and communication skills have helped me more than I ever expected. Here's a sample of what I learned during those years that might help you sharpen your professional edge.

Convey a Friendly Sense of Confidence

As an intelligence analyst, I learned quickly that lack of confidence undermines a briefing's bottom line. The same principle

applies in the fitness studio. Your non-verbal communication can show clients you are knowledgeable and friendly.

EYE CONTACT

The first thing you learn when giving intelligence briefings is the importance of making and holding eye contact, and this is just as important when cuing clients. It helps them feel seen and appreciated, especially if they're new, and that encourages them to return.

Research has found that public speakers who make regular eye contact with their audience are perceived to be more persuasive (Sundaram & Webster 2000). Some public speaking coaches suggest looking around the room in a Z pattern to keep the eyes moving (Collins 2004).

BODY LANGUAGE

If you're at the front of a large group fitness class, you're probably leading with the exact movements your clients will follow. But with a smaller group such as a Pilates reformer class or in personal training sessions, you're likely standing, giving verbal and physical cues to your client. Research suggests the best cues convey friendliness and interest—think casual smiling, light laughter, open body posture and a slight lean forward in the body (Sundaram & Webster 2000).

Also, avoid folding your arms across your chest:

This can make you appear closed off or even frustrated. Good posture exudes confidence, so pull back your shoulders and stand tall. When observing a client, stand with your hands clasped behind your back to show you are confident, yet open.

VOCAL TONE

If you have a naturally higher-pitched voice, you might want to practice lowering your pitch. Researchers have found that adults with lower-pitched voices are more likely

to get leadership positions (Anderson & Klofstad 2012; Klofstad et al. 2012), and that people associate lower-toned voices with authority and trustworthiness.

If you have a higher-toned voice, avoid ending sentences with a questioning inflection, which can also undermine your authority. You need to sound sure of what you're saying, and that might take some adjusting of your casual speaking voice.

Communicate Quickly and Clearly

Intelligence analysts must get their point across to busy policymakers quickly

if they are not done using proper form.

It's also important to speak a bit slower and enunciate more than you would in your daily conversations (Collins 2004). Often if we're nervous or enthusiastic, we can speak so quickly that our audience can't understand us. Even if you're teaching with a headset microphone, crisp consonants and vocalized vowels ensure that your clients hear every cue and correction clearly.

COMMON TERMINOLOGY

When working with clients, especially beginners, stick to nonmedical terms

Video Yourself

Have you ever watched a video of yourself speaking? I had to as part of my analytical training. I still reflect upon those videos in the studio, even though the first ones were pretty cringeworthy. I've also watched a lot of videos of myself in my roles as a fitness and dance instructor and have learned from them to be a stronger communicator. Watching videos of yourself teaching a class or even a private training session can be a fantastic tool to evaluate your body language, vocal projection, cuing and overall energy (Sherin & van Es 2005). It's easy if you have a mobile device; just make sure the camera captures your whole body. If you work in a studio with a mirror, place the camera in a back corner where it can record your body in the mirror's reflection. Before you do, though, make sure that your device has enough storage and battery life for an entire class. And definitely get your students' consent before recording, even if they're not in the frame.

Later, watch the footage, ask yourself these questions and decide where you can make improvements.

- Do my instructions make sense?
- How much eye contact am I making?
- Am I speaking clearly at all times?
- Am I looking at everyone in the room?
- Do I look confident yet relaxed?
- Are members picking up my cues right away?



without ambiguity. Fitness leaders must do the same, particularly in a group class where the instructor's voice competes with music.

PRECISE, CLEAR SPEECH

Group fitness instructors should verbally cue their classes in and out of movements quickly and clearly. Make sure your class interprets your words the way you intend them, particularly with difficult movements or ones that might pose injury risks

about anatomy. Instead of "femur," for example, say, "thigh bone." Or instead of "iliopsoas," just use "hip flexor." Save the anatomical talk for your colleagues.

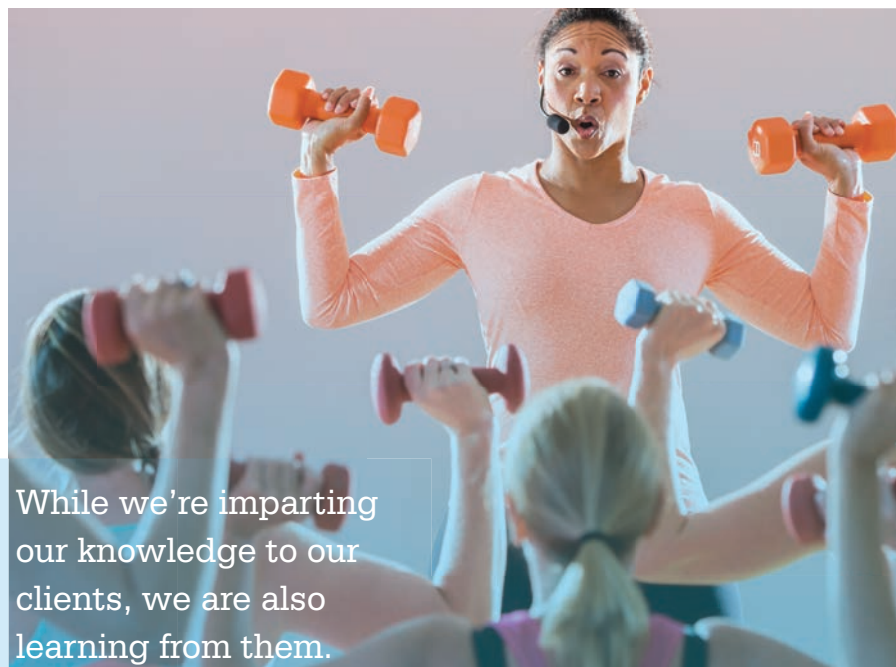
VISUAL AIDS

Policymakers love graphics, and so do clients. Research shows that using visuals while teaching significantly improves learning and retention of new information (Collins 2004; Stokes 2002). When appropriate, make printouts or use other

visual references such as posters or books to show specific muscle groups or bones to supplement your teaching. Even better: Make something your client can take home.

Get Better at Answering Questions

When clients ask questions during a class, make sure to repeat the question so everybody can hear it before you begin your reply.



While we're imparting our knowledge to our clients, we are also learning from them.

We must regularly reflect on which cues are most effective and what descriptions truly stick with our clients.

When leading a group class, or even working one-on-one with a client, be sure to answer questions quickly and precisely. The client isn't paying you to wax poetic about how fascinated you are with the structure of the glenohumeral joint or the latest peer-reviewed research on workout recovery!

We must continually educate ourselves on developments in our field, including breakthroughs in sports medicine, kinesiology and workout recovery. But sometimes a client will ask a question to which we won't have the answer.

One of the first things I learned as an analyst was that it's all right to not have

all the answers. Some people would rather create an answer or talk around a subject rather than look uninformed. But in reality, clients will respect you more if you admit when you need to do some research and get back to them.

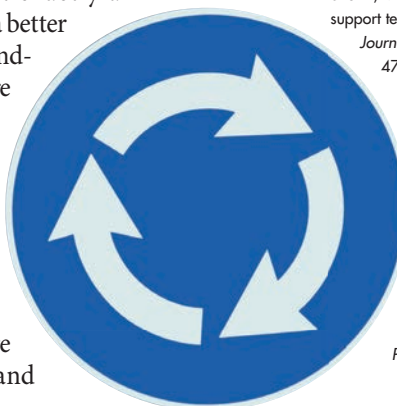
Studies have found that children who want to impress adults around them often make up answers to a question if they don't know the right answer (Waterman et al. 2000). Of course, we don't want to

be perceived as a child but as a leader! Also, remember that what you say is being heard by clients and maybe even repeated. Upholding your credibility is of utmost importance.

Say what you know, and admit what you don't know. Then follow through, get the right answer and remember to deliver it in the next session.

Teaching Is a Roundabout

Teaching is not exactly a two-way street; a better analogy is a roundabout. While we're imparting our knowledge to our clients, we are also learning from them. We must regularly reflect on which cues are most effective, and



what descriptions truly stick with our clients. We are also constantly learning, adapting and polishing our methods to make sure our clients understand and integrate our guidance quickly and safely.

Instructors succeed when their participants truly learn something new or look at old information in a new light. Intelligence officers also must ensure that their briefings shift—or elaborate on—their clients' perceptions or viewpoints, hopefully so they will make the best decisions for the citizens of their country. And while the fate of the nation isn't at stake when you lead your group fitness classes, you owe it to your clients to be engaged, inspiring and informative.



ABIGAIL KEYES is a writer and researcher with a background in performance studies and wellness. She holds an MA in dance and performance studies from Mills College, and she has taught dance, fitness and somatics on five continents. She's earning her mat and reformer teaching certification in STOTT PILATES, and she lives in Berkeley, California.

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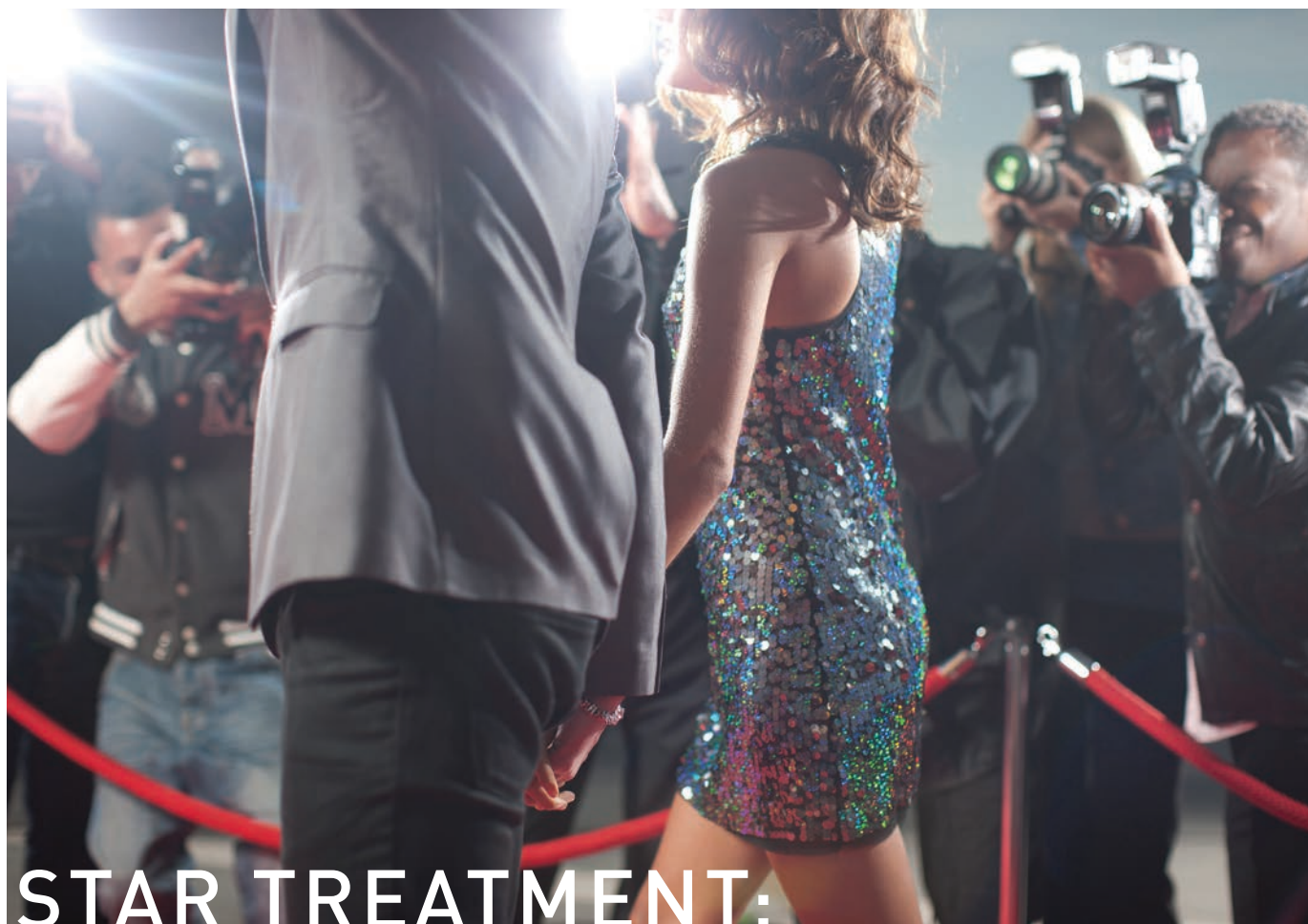
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STAR TREATMENT:

Finding and Training High-Profile Clients

Trainers with celebrity clients share their secrets for elevating the wellness and performance of the glitterati.

BY LAWRENCE BISCONTINI, MA

If you've dreamed of training famous actors, athletes, business people or other celebrities, it's important to realize that you can—as long as you do certain things right and avoid doing certain things wrong. You also need a unique job mindset and a special understanding of these kinds of clients.

Celebrity clients expect three things above all else:

1. CONFIDENTIALITY. You can never reveal anything said or done in your training sessions unless you're given the "okay" in advance.

2. FLEXIBILITY. Stars' schedules, goals and demands can shift like the winds; you must be able to adapt.

3. TOP-TIER PROFESSIONALISM. It's all business with the famous. They're not in this to be your friend, and you have to bring your A-game to every session.

Now, let's walk through each of these:

Can You Keep a Secret?

Confidentiality must be absolute with celebrity clients. Because you'll be work-

ing with well-known people dressed in fitness clothes who are not camera-ready, they must feel comfortable around you. You may even have to sign confidentiality forms and turn off your mobile phone—no selfies unless they want one. "I carry my cellphone when walking the Hollywood Hills outdoors with my clients only for emergency purposes, but otherwise it remains off," says Jeffrey Bornman, a trainer who works with celebrities in Hollywood, California. "Your client has to know that whatever happens between the two of you will stay between the two of you. Trust is the most important issue for them when letting their guard down to work with you in such a personal capacity."

How Flexible Are You?

Celebrities need a trainer who understands their special needs and expectations. You'll have to accommodate ever-changing schedules without showing a hint of frustration at tardiness, missed appointments and changed programs. You'll have to be

okay with clients multitasking—taking urgent calls or texts during sessions.

Todd Durkin, MA, CSCS, founder of Fitness Quest 10 in San Diego, agrees that having a high-profile client comes with unique responsibilities that transcend the normal 60-minute interaction. “While I treat all my clients with the same energy, focus and attention,” he explains, “many times high-profile clients need more time outside of our session with additional accountability and motivation. Because they are often very busy, it’s easy for them to get distracted and off course, so it’s my job to make sure they are doing what they should be doing when they are *not* with me.”

Can You Be “All Business”?

“Whereas some clients are not very serious about being their absolute best, celebrities tend to be more serious about results and appreciate finding a trainer who can facilitate that,” says Doug Brignole, a Hollywood trainer and champion bodybuilder who has worked with many celebs over the years. “Celebrity clients have high expectations of their service providers but don’t want to feel that their trainer is star-struck by them.”

And make sure you understand that a famous performer’s appearance is a product they use to build their brand. New York City-based Dominique Adair, MS, RD, explains that “[while] people are people in terms of their response to exercise, I have found the ‘appearance stakes’ are considerable with very-high-visibility clients. It helps me to think I am working with a brand in addition to a person.”

Jennifer Horvath, Pilates teacher trainer for Body Harmonics in Montreal, agrees: “Because they are a commodity, unlike most other clients, celebrities rarely have time for, nor want to, chitchat or get to know you like your regular clients. They are mostly all business and they just want to stick to the workout for their specific, measurable goals.”

Why It’s Good to Have VIP Clients

The benefits of working with famous clients generally outweigh the complications. “Having high-profile clients lends a strong element of social proof for your training business,” says Michael Piercy,

MS, NASM-CPT, CES, PES, CSCS, recipient of the 2017 IDEA Personal Trainer of the Year Award and owner of The LAB Performance & Sports Science center in Fairfield, New Jersey.

Furthermore, says Durkin, “If they trust and like you and you have a solid relationship with them, they have the ability to open up opportunities in their

sphere of influence. And the generous ones take care of you and your family. [NFL quarterback] Drew Brees, whom I’ve been training for 15 years, recently took my entire family to Kauai for an incredible vacation.”

The marketing voice and influence of famous clients can be a game-changer, says Mark Fisher, who trains elite Broadway

Tips from the Pros for Landing Famous Clients

Looking to find some higher-profile clients? Here are some tips from the experts:

★ **“Start by looking current, sleek and professional** in all of your marketing materials, from your Facebook page to website to business card. Have a consistent message, hashtag and image you represent. Project that consistency.”

—Jeffrey Bornman

★ **“Develop relationships with their ‘handlers.’** All high-profile clients work with handlers like agents, talent managers and publicists. By building a relationship with them, you position yourself to serve their high-profile clients.”

—Mark Fisher

★ **“Become the best in your field.** When the A-listers come to town and they need referrals, you will be the one referred if you are the best of the best in your city and you’ve built up a reputation.”

—Jennifer Horvath

★ **“Just ask the universe.** Put out there to your current classes and clients that you’d love to take on a higher-profile client and would love your tribe to help you make that happen. Ask everyone to introduce you to just one high-profile potential client. Soon you are meeting neighbors who are news anchors, friends of friends who are announcers on the local television station, and your children’s president of the Parent Teacher Association. Everyone knows someone.”

—Lawrence Biscontini

★ **“Start with one celebrity client, and then encourage him or her to tell a friend about you.** I was referred to a client named Dr. Harold Karpman—a Beverly Hills cardiologist—by his son. Soon, Dr. Karpman referred me to the Gavins. [John Gavin is a former U.S. ambassador and a well-known actor from the 1950s and ‘60s, and his wife Constance Towers is a regular on *General Hospital* and has appeared in a number of feature films]. Soon, the Gavins referred me to Pat McQueeney [who was the manager for Harrison Ford]. McQueeney then referred me to Mace Neufeld [producer of many feature films]. Neufeld then referred me to Phillip Noyce [prominent movie director]. Noyce then referred me to Colleen Camp [former TV star and now producer of feature films]. And now Camp is suggesting introducing me to a number of other high-profile celebrities.”

—Doug Brignole

performers in New York City. “Among our many Tony Award-winning Broadway stars, we’ve trained choreographer Jerry Mitchell [of *Legally Blonde*, *Kinky Boots* and *On Your Feet*] for many years,” Fisher said. “He’s been a very public advocate for Mark Fisher Fitness, which has helped grow and legitimize our brand among the Broadway community.”

Finally, you can make considerably more money training celebrities—not merely because they can afford higher rates, but because of all of the extra effort you must extend, including strange hours, travel time and extra preparation. Those hours are billable, of course.

It's a Team Effort

The personal trainer of a celebrity sometimes has to coordinate with other professionals in the star’s orbit. “I have clients who are under pressure to prepare for different

types of roles, like needing to have weight gain or weight loss,” says Bornman. “So I have to stay in constant contact with their nutritionist and even therapists to coordinate their overall wellness so they can achieve their SMART [specific, measurable, attainable, realistic, timely] goals as needed.”

Adair adds: “My job as nutritionist for most celebrities means I am responsible for the nutrition arena myself and then act as a wellness coordinator for everything else including hiring others, composing medical teams and sourcing exercise equipment.”

Confronting the Complications

Preparation is key to handling the ups and downs of

high-profile clients. Bornman recommends a fair—but strict—cancellation policy. “All of my clients know that I invoice them for all canceled sessions with less than 48 hours advance notice. They also know that I can try to rearrange things to create last-minute sessions, but at a markup starting at 100%.”

Self-care also becomes paramount



TODD DURKIN, MA, CSCS, OWNER OF FITNESS QUEST 10 IN SAN DIEGO, SAYS THAT HAVING A HIGH-PROFILE CLIENT COMES WITH UNIQUE RESPONSIBILITIES THAT TRANSCEND THE NORMAL 60-MINUTE INTERACTION. DURKIN RECENTLY JOINED LADAINIAN TOMLINSON, (INSET) WHO HE TRAINED DURING HIS 11-YEAR CAREER IN THE NFL,

TO CELEBRATE THE RUNNING BACK’S INDUCTION TO THE PRO FOOTBALL HALL OF FAME. DURKIN HAS ALSO TRAINED NEW ORLEANS SAINTS’ SUPER BOWL CHAMPION QUARTERBACK DREW Brees FOR MANY YEARS, DURING WHICH TIME Brees HAS LED ALL NFL QUARTERBACKS IN TOUCHDOWNS, PASSING YARDS AND 300-YARD GAMES.



HAVING HIGH-PROFILE CLIENTS LENDS A STRONG ELEMENT OF SOCIAL PROOF FOR YOUR TRAINING BUSINESS," SAYS MICHAEL PIERCY, MS, NASM-CPT, CES, PES, CSCS. PIERCY (CENTER) HAS TRAINED A NUMBER OF CELEBRITIES AND STAR ATHLETES THROUGH THE YEARS, INCLUDING ACTOR R. MARCOS TAYLOR (LEFT) AND

FORMER NEW YORK GIANTS OFFENSIVE LINEMAN AND TWO-TIME SUPER BOWL CHAMPION KAREEM MCKENZIE, BOTH OF WHOM JOINED HIM EARLIER THIS YEAR TO CELEBRATE THE GRAND OPENING OF HIS NEW PERFORMANCE & SPORTS SCIENCE FACILITY IN FAIRFIELD, NEW JERSEY.

PHOTO: DAVE ROLDAN PHOTOGRAPHY

because having demanding clients requires you to be resilient enough to accommodate strange schedules. "My VIP clients know that I offer 'concierge training,' which includes being able to text me meal questions from restaurants, requests for motivation when they are on the road, and calls to check in with me," Bornman says. "All of that comes at a premium price, and now even some of my non-celebrity clients want in on that special value."

Training a Star

At the movement level, training a celebrity is about the same as training anybody else. "I don't train celebrity clients differently than non-celebrity clients," Brignole says. "Doing so would suggest one of two things: Either celebrities' bodies are anatomically different from those of non-celebrities, which is obviously not true, or that I save the 'good' workouts for the celebrities, and I give the 'bad' workouts to non-celebrities, which is also not true."

While celebrities may rush in late and need to leave early, their challenges, goals, questions and physical issues are consistent with those of traditional clients. "Keeping a level head when working with all of your clients, regardless of what they do, or who they are, is so important," says Bornman. It's crucial, he adds, to treat all clients the same as we coach each one toward his or her wellness goals.

What Does a Celeb Want in a Trainer?

Constance Towers, star of the ABC soap opera *General Hospital* and the movie *The Perfect Murder*, often jets between New York City and her home base of Hollywood. That means she prizes a trainer who "understands that sometimes I have to cancel at the last minute and it's just beyond my control."

Towers and her husband, John Gavin appreciate that their trainer respects their privacy when he trains them at their home. "If he wants a picture for his own website or resumé, I'm happy to agree to that," she says. "But we know that in advance and plan that together outside of training hours."



LAWRENCE BISCONTINI, MA, is a motivational author and speaker with multiple awards. He has worked with celebrity clients for decades and collaborated with them for philanthropic goals. His website is www.findLawrence.com.



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CORNER

THIS ISSUE'S CEU CORNER AND QUIZ FEATURE IS:

FITNESS FOR TWO

How fitness professionals can help keep pregnant women and their babies safe, healthy and fit.

BY LAURA QUAGLIO



LEARN & EARN CEUs





By Laura Quaglio

*How fitness professionals
can help keep pregnant
women and their babies
safe, healthy and fit.*

Fitness



In the late 19th century, pregnant women were deemed frail, but strong enough to perform light housework. (Lucky them.) In an extensive review of studies on pregnancy and exercise since the 1950s, Kehler & Heinrich (2015) reported that views on pregnancy progressed significantly with the rise of feminism, the boom in health and fitness, and an increasing willingness to question unsupported notions about maternal fitness. (Lucky us!).

Even as recently as 30 years ago, there were two schools of thought on prenatal workouts. According to *Exercising Through Your Pregnancy* (Addicus Books), written in 1998 by renowned obstetrics researcher James F. Clapp, III, MD, and updated in 2012 with exercise physiologist Catherine Cram, MS, the “conservative school” feared moms venturing beyond inactivity and bed rest, while the “liberal school” included women who had exercised safely throughout pregnancy and believed it to be “not only normal but helpful.”

This drove a wedge between many pregnant women and their caregivers—and sometimes friends, family and fitness professionals—that hasn’t quite disappeared today. Fortunately, it *also* sparked interest in research on pregnancy and fitness, which also continues.

Pregnancy is not something women or their trainers need to take lying down. In most cases, exercise is good for mom and baby alike—it just requires some common sense and science-backed precautions.

Fitness Pros and Pregnant Clients

Some fitness pros hesitate to work with pregnant moms because they’re not sure how to do it safely. That’s part of a conversation that needs to change, says Tatum Rebelle, NASM-CPT, a 16-year pre- and post-natal fitness and nutrition expert and founder of Total Mommy Fitness™ (www.totalmommyfitness.com).

“Culturally, we need to change the way we talk about pregnancy. There’s a pervasive attitude that your job is to sit back and relax and have a baby,” says Rebelle, who was in the third trimester of her first pregnancy when *American Fitness* caught up with her. Rebelle says she has struggled with “mommy guilt” and well-wishers who panicked when she’d pick up a box or move a chair. Even when people’s concerns come from a place of love, notes Rebelle, “those misconceptions end up doing more harm than good.”

Exercise has proven benefits for mothers and children (see sidebars). Even so, pregnant women face substantial barriers to exercise—including physical changes (nausea, fatigue, discomfort), negative perceptions of maternal exercise, and their own uncertainties about how to modify workouts for safety and success. And while fitness professionals are uniquely suited to help women navigate this territory, Rebelle says many won’t work with them because of fear, uncertainty and a lack of knowledge about the subject.

for Two



Actually, it can be good business for fitness trainers and instructors to have a basic understanding of exercise during pregnancy “so if they have a client who gets pregnant, it’s not a dead stop...or, God forbid, (trainers) treat them the same as other clients and they become injured,” says Rebelle. In addition to expanding your marketability, you can become part of the solution, dispelling pregnancy-exercise myths by sharing evidenced-based research on the topic.

You may even develop a passion for working with this population, as was the case with Rebelle and Cram, a leading expert in maternal fitness and founder of Prenatal & Postpartum Fitness Consulting (www.prenatalandpostpartumfitnessconsulting.com).

“Working with pregnant women is absolutely the joy of my life,” says Cram, who has done so for 17 years. “I want to always uplift and educate and empower. Pregnancy puts women who are very strong in a very vulnerable place, and we need people in this field to help give them back that sense of trust in their own body because they’re the best person to determine what’s right for them.”

Guidance from the Medical Community

“Women with uncomplicated pregnancies should be encouraged to engage in aerobic and strength-conditioning exercises before, during, and after pregnancy,” the American College of Obstetricians and Gynecologists states in a 2015 position

paper. The key word is “uncomplicated,” Cram says. Pregnant women should always consult with their healthcare provider to determine whether they have any complications that may make exercise contraindicated. Once their doctor clears them for exercise, remember to keep your lines of communication open and request updates at every workout to help you adapt quickly if a client’s circumstances change. In most cases, ACOG “encourages ambulation,” even if there are complications.

Quantity, Duration and Intensity

ACOG recommends that pregnant women follow a workout regimen that aims for at least 20–30 minutes of moderate-intensity



Mind-Body Benefits for Baby

Research shows that prenatal workouts help babies both in utero and out.

Easier labor and delivery. Women who exercise at a moderate-to-some-what-challenging level during pregnancy have a larger placenta and, in turn, “a greater profusion of blood flow, so their baby has a safety valve that other babies don’t have,” says Catherine Cram, MS, a leading expert in prenatal fitness. “These babies have essentially been training with the mom, so they have a greater reserve to deal with those stresses during birth.”

An edge during childhood. When evaluated at ages 1 and 5, children born to pregnant exercisers perform significantly better on mental and physical performance tests, including those measuring intelligence, academic readiness, coordination, manual dexterity and visual-motor skills (Clapp & Cram 2012). These kids are also born “leaner,” says Cram. With fewer fat cells at birth, these children are less likely to develop overweight or obesity later in life.



exercise per day, most or all days of the week, and adjusting “as medically indicated.” It’s no coincidence that this is the same advice for all healthy adults issued by the U.S. Department of Health and Human Services in 2008.

But what about more-intense exercise? Alas, research hasn’t determined a safe upper limit for exercise intensity during pregnancy. However, ACOG notes that women with healthy pregnancies who were working out regularly before conception should be able to continue high-intensity exercises such as running, jogging and aerobics “with no adverse effects.”

ACOG adds that hypoglycemia (low blood sugar) can become a concern for pregnant women during high-intensity exercise or sessions lasting more than 45



Mind-Body Benefits for Mom

Exercise delivers the same rewards—fitness, wellness and cardiorespiratory health—to expectant mothers as it does to everyone else. It *also* provides extra help to mother and child, physically and mentally, during and after the pregnancy.

Haakstad et al. (2016) noted that women who exercised per American College of Obstetricians and Gynecologists guidelines had “significantly better scores on measurements of feelings related to sadness, hopelessness and anxiety” and “rated their health significantly better” than a control group. Fewer women in the workout group reported nausea/vomiting and numbness or circulatory problems in their legs during their pregnancy.

Extensive research has determined that a prenatal workout program:

- ♦ relieves stress, improves mood and boosts confidence
- ♦ improves sleep, particularly earlier in the pregnancy
- ♦ improves posture and balance
- ♦ reduces many physical complaints, such as fatigue, achy legs and lower-back pain
- ♦ reduces swelling in the extremities
- ♦ reduces constipation and incontinence
- ♦ may reduce the risk of pregnancy-induced diabetes
- ♦ may reduce the risk of preeclampsia (pregnancy-induced high blood pressure)
- ♦ reduces fear of labor and delivery by improving body awareness and a sense of control
- ♦ results in a shorter, less difficult labor with fewer complications or medical interventions
- ♦ results in quicker, easier postpartum recovery

These and other benefits are explained in greater detail in *Exercising Through Your Pregnancy* (Clapp & Cram 2012) and in the CEU/CEC courses offered by Tatum Rebelle, Catherine Cram and the NASM Women’s Fitness Specialization.

minutes, so caloric intake beforehand is especially important, as is proper hydration.

The Obstetrician’s Role

Currie et al. (2016) note that physical activity “is not a priority for health professionals providing antenatal care, as there are many other important health messages and information to be delivered during routine visits.” But the benefits to the health of both mom and baby mean that they have a vested interest in patients exercising safely (see sidebars).

Sadly, adherence to exercise guidelines is dismal among pregnant moms, whose participation rate is just 16%, which is 10 percentage points *lower* than exercise adherence among nonpregnant women (Hinman et al. 2015). While obstetricians typically aren’t experts in exercise, their support of prenatal workouts can make a very real difference. According to ACOG (2015), “Patients are more likely to control weight, increase physical activity and improve their diet if their physician recommends that they do so” (ACOG 2015).

Health organizations recommend that pregnant women consult with a healthcare professional on their exercise regimen. Further, the National Academy of Sports Medicine Women’s Fitness Specialization encourages fitness pros to work closely with clients’ obstetricians and follow their recommendations (NASM 2012).

Cram notes that people would like to have a simple list of dos and don’ts, but a cookie-cutter approach to exercise doesn’t work for any population—especially pregnant women. “A woman’s doctor may say ‘don’t lift anything heavier than 20 pounds.’ For some women, that’s way too heavy, and for others it’s nothing,” she says.

What the obstetrician *can* do is closely monitor how the baby is growing and alert the mom if there is a concern and explore appropriate modifications. For instance, if a woman is training heavily and the fetus’ growth rate isn’t on target, the mom may need to increase caloric intake, decrease intensity or otherwise modify her program. Medical professionals will also be watching for complications and absolute

contraindications to pregnancy exercise, such as an incompetent cervix, placenta previa, preeclampsia or severe anemia (ACOG 2015; ACOG 2016).

Pregnancy Changes That Affect Exercise

These physical challenges include far more than navigating a belly bump and supporting a larger bust. Besides serious issues like complications and contraindications, pregnant women's workouts may collide with symptoms such as nausea, fatigue, heartburn/reflux and sciatica. These are some of the most common changes that appear during a normal, healthy pregnancy:

BALANCE. As the anterior abdomen expands to accommodate the fetus, women often develop a deep low-back curve (progressive lordosis). This shifts the body's center of gravity, affecting balance and often causing lower-back pain. Low blood pressure can trigger dizziness, especially when transitioning from sitting to standing.

TIGHT HIP FLEXORS CAN LEAD TO AN ANTERIOR PELVIC TILT IN PRENATAL CLIENTS, CAUSING AN EXCESSIVE LOWER-BACK ARCH.



CARDIOVASCULAR SYSTEM. As early as 2–5 weeks into pregnancy, resting heart rate increases and stays elevated until late pregnancy. Blood volume, stroke volume, cardiac output and resting VO_2 also rise. Blood pressure declines as hormones cause veins to relax and open wider to accommodate the increased blood volume. Some of these changes can trigger symptoms such as fatigue, nausea and dizziness.

MUSCLE SEPARATION. During pregnancy, a condition called diastasis recti emerges when the rectus abdominus separates vertically down the center of the abdomen, along the linea alba, to allow the fetus room to grow (NASM 2015). Wearing a belly support belt may help relieve back and hip pain, and performing transverse “abdominal” exercises may help strengthen surrounding muscles to prevent problems.

This is one of the conditions for a health-care professional to monitor throughout pregnancy.

FLEXIBILITY. The body increases production of the hormone relaxin, which loosens ligaments in the pelvis and pubic symphysis in preparation for childbirth. But it's not discriminating; it also relaxes ligaments in other joints, so pregnant women need to be careful with stretching/flexibility, joint movement, balance and activities that require quick cutting and directional changes.

METABOLISM. Pregnancy hormones cause increased metabolism and affect how energy in the form of blood sugar is delivered to mom and baby. Specifically, they cause “a glucose-sparing effect, where glucose goes to the fetus and the mother's cells experience an increase in fatty acid oxidation” (NASM 2012).

RESPIRATORY SYSTEM. Resting respiration increases by 50% due to deeper breathing, although pregnant women generally feel short of breath. Interestingly, though, the lungs become more efficient at oxygen uptake during pregnancy.

TEMPERATURE REGULATION. Increased blood flow to the skin makes the mother's body better at regulating temperature. However, caution is still necessary: Exposure of a pregnant mother to excessive heat (as in a hot tub, sauna, hot yoga session or extreme temperatures indoors or outdoors), particularly during the first trimester, can result in neural tube defects in her baby.

WEIGHT GAIN. For women who begin pregnancy at normal weight, the Institute of Medicine and ACOG recommend a gain range of 25–35 pounds (ACOG-1 2016). This includes the fetus, placenta and amniotic fluid, as well as increases in maternal fat stores, uterine and breast tissue and blood volume. Breast enlargement and compensations to body changes can lead to an excessive roundness of the upper back (kyphotic curve).

Basic Workout Guidelines

Pregnancy presents opportunities to encourage women to take better care of their health for the sake of their fetus. In fact, this may motivate a mom-to-be to start an exercise program.

If you're working with experienced exercisers, urge them not to compare today's performance to how they did before

Pregnant Pause... or Time to Stop?

The American College of Obstetricians and Gynecologists says **prenatal exercise should be halted immediately** if a pregnant woman has any of these symptoms:

- ♦ vaginal bleeding
- ♦ regular painful contractions
- ♦ amniotic fluid leakage
- ♦ difficult/labored breathing before exertion
- ♦ dizziness
- ♦ headache
- ♦ chest pain
- ♦ muscle weakness affecting balance
- ♦ calf pain or swelling

If these symptoms happen, have her seek medical advice immediately and request a physician's clearance before training again.

they were pregnant. Aim for consistency and fitness—not gains.

These reminders can help keep your pregnant client safer and more comfortable:

CHOOSE A SAFE PLACE. Conduct sessions in a climate-controlled environment, avoiding high heat and humidity. Encourage her to wear lightweight moisture-wicking clothing to stay cool. She should not train at altitudes above 6,000 feet unless she is already acclimatized (ACOG 2015). If she participates in group training or does weight training in a room with others, be sure she is well away from those who could bump, kick or otherwise connect with her.

USE RPE OR THE TALK TEST. Heart rate is all over the place during pregnancy, so it's not a reliable gauge of workout intensity. Use the rate of perceived exertion (RPE) or the talk test instead.

MODIFY ONE THING AT A TIME. Pregnant women should modify their workout routine for comfort and safety as their pregnancy progresses. If you need to back off as a pregnancy progresses, reduce intensity first, then duration. Try to maintain frequency, even if it's at a much lower intensity. This can help keep her in the habit so she will continue ex-



exercising after delivery.

KEEP AN EYE ON NUTRITION. Make sure she consumes enough calories and hydrates properly. This is particularly important for pregnant women training for longer durations or at higher intensities, such as elite athletes and fitness pros.

DISCUSS ACTIVITY CHOICES. ACOG says pregnant women should avoid high-risk activities including scuba diving and sky diving. It also advises against playing contact sports like soccer, basketball and boxing, as well as activities with a high risk of falling, such as skiing (water and snow), gymnastics, off-road cycling and horseback riding.

CHEER HER ON. Be positive and supportive of her efforts—and encourage her partner to do the same. “Women tend to be very hard on themselves, so the trainer’s job may be to give them permission to take care of themselves in a way that they haven’t before,” says Rebelle.

Modifying Specific Moves

Cram is reluctant to place any type of exercise (save scuba diving, hot yoga and hot Pilates) completely off-limits to pregnant women. “Most types of exercise

can be modified,” she says. For instance, mountain bikers can switch to flatter, straighter roads. When clients ask Cram if they can keep doing something, she asks them, “Does this make sense?” and “Is it worth it?”

“In most circumstances, the fall risk for the baby, I think, is overstated,” adds Cram. “The baby is very well-protected. With some activities, I’m more fearful of the mother getting injured.” Bringing home baby is enough of a challenge on its own; doing so with a sprained ankle or other injury is less than ideal.

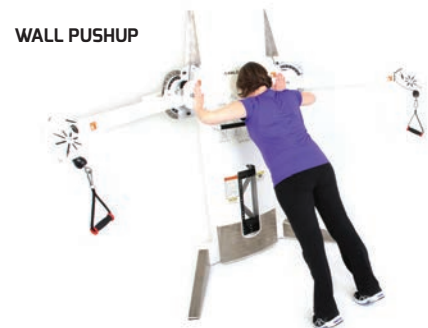
“It’s better to prevent being injured than to get injured and try to recover,” says Rebelle, who pulled a groin muscle early in pregnancy (chasing her dog, not exercising) and still hasn’t healed. “Now I know firsthand why I tell women the things I do!”

These recommendations are a good place to start:

- ◆ Avoid assessments that require her to be on her back after the first trimester. In this position, the uterus presses on a large vein that returns blood to the heart (ACOG 2016). Never ask a pregnant client to perform a maximal exercise test. Some

of the more-valuable results may be found from push, pull, overhead squat, single-leg squat or balance assessments, but also know that some movement assessments may be skewed by joint laxity.

- ◆ After the first trimester, modify prone or supine exercises by propping up the back or hips or using a stability ball. Exercises can also be done against a wall (such as wall pushups) or while turned on the side. Avoid moves that twist the torso.



- ◆ Maintain balance training, but conduct it on a stable surface and have a chair, wall or other source of support nearby.

- ◆ Add corrective training to counteract the effects of pregnancy, such as an arched lower back or rounded upper back.

- ◆ Include exercises that strengthen the pelvic floor muscles.

- ◆ Provide clear and concise cuing to ensure client safety, particularly when modifying exercises or demonstrating new ones.

- ◆ Emphasize the importance of proper breathing; ensure your client does not hold her breath.

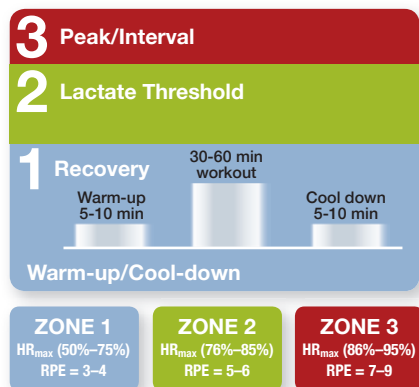
- ◆ Modify self-myofascial release to avoid prone or supine positions. Avoid SMR on painful varicose veins or swollen extremities.



SMR OF LATERAL GASTROCNEMIUS

- ◆ Discuss modifications for other activities. For instance, some martial arts drills can be performed without contact and with ample distance from other participants.

- ◆ Use NASM's guidelines for Stage I (Zone 1) cardiorespiratory training (below). Seek her doctor's okay before entering Stage II (below) (NASM 2018).



- ◆ In the NASM Optimum Performance Training™ model, training in Phases 1 and 2 during the first trimester is recommended, (visit the NASM website for more details on OPT: www.nasm.org/certified-personal-trainer/opt-model) even if the client is new to exercise. The NASM *Women's Fitness Specialist* manual adds that women who have been training previously may also train in Phase 5, but they may need to modify the intensity downward. After the second trimester

begins, only Phase 1 is recommended (NASM 2012).

- ◆ In most cases, aim for maintenance of fitness rather than gains, keeping safety front of mind. However, women who *begin* exercising during pregnancy can start with 5–15 minutes of physical activity and gradually increase over time.

- ◆ Consider adding functional exercises that will help the mother when the baby arrives, such as teaching her how to properly lift and carry her child.

- ◆ Listen to your client. Watch her closely, and pay attention to her energy level and form. Regress the exercise or modify it if form is failing. Stop if she feels like she should stop.

Rebelle and Cram both stress the importance of telling your client to listen to her body. Pregnancy, they say, can be a powerful motivator to self-awareness and mindfulness.

Pregnancy in Fitness Pros and Elite Athletes

Hinman et al. (2015) mentions that two small studies—one with five vigorously active women and another with six Olympic-level endurance athletes—reported decreases in fetal heart rate and blood flow to the uterus when the maternal heart rate exceeded 90% HR_{max}. But FHR returned to normal soon after exercise was stopped, and neonatal outcomes didn't appear to be significantly affected. As there is “only anecdotal evidence that even strenuous activity causes preterm labor or delivery,” ACOG's only warnings seem to be avoiding excessive heat (hyperthermia) and ensuring adequate intake of fluids and calories to maintain fetal growth. ACOG recognizes that competitive athletes may need more fitness and medical supervision during and after pregnancy due to their more-intense training.

Fitness pros may find that continuing high-intensity training throughout pregnancy may produce fitness gains, even when following a maintenance program (Hinman et al. 2015). In a recent clinical review, Hinman et al. noted that doing so “significantly increased the participants' VO₂max from week 17 gestation to 12 weeks postpartum.” Additional study summaries by Kehler & Heinrich (2015) noted that a professional athlete training under rigorous conditions and others



exercising at high intensities had uncomplicated labors, delivered healthy babies, maintained fitness and returned to sport quickly. Those training at high intensity also had a significantly shorter labor.

Rebelle adds that the mindset adjustment is one of the most difficult aspects of pregnancy for elite athletes and fitness professionals. “They don't want to lose everything they've gained, but this is not the time to increase their 1-repetition maximum or shave time off their mile,” says Rebelle. It's also not the time to try to lose weight. Even for women with overweight or obesity, the recommendation is usually to *maintain* weight during pregnancy, not make losses or gains.

Athlete clients need to understand that much of their pregnancy weight will be accounted for by baby, blood volume, fluid and placenta, but gaining a little fat is essential, too. Breastfeeding and training during recovery will help them lose excess weight quickly postpartum.

Take Your Education to the Next Level

Pregnancy is incredibly complicated. It affects a woman's whole body—and the body of her growing baby. The more you know as a fitness professional, the better you can modify and individualize programming, keeping it safe for clients who are pregnant or plan to be.



“I think education and support are incredibly important,” says Rebelle. “The information is out there to help trainers work with pregnant clients and to help pregnant women feel comfortable in the gym.” Rebelle began her foray into the subject when a client purchased a 20-session package, got pregnant and stopped returning her calls. “I thought, ‘it shouldn’t be this way,’ so I decided to become more knowledgeable about prenatal exercise.”

Cram offers a Prenatal and Postpartum Exercise Design Course (4th ed. 2016), created with Gwen Hyatt, that includes a comprehensive and informative workbook, an impressive exercise library, and guidelines for strength training, water exercise and competitive sports (7 AFAA/0.7 NASM CEUs). Rebelle’s Total Mommy Fitness Pre and Postnatal Certification provides a quick review of the research in a jam-packed manual, plus medical illustrations and exercise videos and demos (10 AFAA/1.0 NASM CEUs). The NASM Women’s Fitness Specialization (13 AFAA/1.3 NASM CEUs) delves into the unique psychological and physiological considerations associated with adolescence, pre/post-pregnancy, pre/post-menopause—and everything in between. It includes insights into nutrition, barriers to exercise, special concerns (like the female athlete triad) and exercise recommendations (core, cardio, balance,

flexibility, strength and more) with full-color photos. And this article can earn you 2 AFAA/0.2 NASM CEUs. (Learn more on the following page.)

Whatever further instruction you pursue, be sure the course is backed with research and real-world experience, and it’s not full of fear-mongering. “Women need to be comforted and not scared,” says Cram. “Pregnancy should be a fun time. Your body is doing great stuff. Let’s take the fear out of it.”



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LAURA QUAGLIO is a mother of two, a second-degree black belt and a recent devotee of Pi-Yo and HIIT. She has written articles for new and expectant moms for Real

Woman, Fit Pregnancy and the NASM blog.

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CEU QUIZ: FITNESS FOR TWO

LEARNING OBJECTIVES: After reading the article, you should be able to:

- Identify current guidelines for and benefits of exercising during pregnancy.
- Explain physical changes of pregnancy and their effects on physical activity.
- List warning signs that an exercise should be modified or stopped.
- Create general exercise modifications for pregnant clients.

1. According to the American College of Obstetricians and Gynecologists:

- women who did not exercise before conception should not begin during pregnancy
- "ambulation" is encouraged for most pregnant women
- pregnant women with complications should never exercise
- pregnant women should engage only in aerobic exercise, not strength training

2. ACOG exercise guidelines on duration and intensity for healthy pregnant women recommend:

- about 15 minutes of exercise (or less) at a time and no more than 60 minutes per week
- about 75 minutes of low-intensity exercise per week
- about 150 minutes of moderate-to-vigorous exercise per week
- light housework but no strength training

3. ACOG's 2015 position paper states which of the following?

- Women with uncomplicated pregnancies should be encouraged to engage in aerobic and strength-conditioning exercises before, during and after pregnancy.
- Women with uncomplicated pregnancies should be encouraged to engage only in aerobic exercise before, during and after pregnancy.
- Women with uncomplicated pregnancies should be encouraged to engage in aerobic and strength-conditioning exercises before and after pregnancy, but not during.
- Women with uncomplicated pregnancies should *not* be encouraged to engage in aerobic and strength-conditioning exercises before, during and after pregnancy.

4. The safe upper limit of exercise intensity for pregnant women:

- has not been officially established by research
- depends upon their preconception exercise routine and fitness level
- is the same for all pregnant women: low-to-moderate intensity only
- both a. and b.

5. Adherence to ACOG exercise guidelines among pregnant women is:

- about 5%
- about 16%
- about 26%
- about 30%

6. The obstetrician's role in exercise programming is to:

- assist with details due to an extensive background in fitness
- question patients' desire to exercise and express concerns
- explain anatomy and physiology of pregnancy to fitness professionals
- monitor the health of mother and fetus, watch for problems and provide recommendations regarding exercise safety

7. The growth of the anterior abdomen in pregnancy can cause:

- an extremely arched low back
- a center of gravity shift
- lower-back pain and discomfort
- all of the above

8. A pregnant woman's cardiovascular system goes through extensive changes, including:

- increases in resting heart rate, blood volume, stroke volume, cardiac output and resting VO_2 , and a decrease in blood pressure
- decreases in resting heart rate, blood volume, stroke volume, cardiac output and resting VO_2 , and an increase in blood pressure
- a decrease in blood volume and increase in blood pressure
- decreases in blood volume and blood pressure

9. Other ways in which a pregnant woman's physical changes can affect exercise include:

- tightness in ligaments, difficulty regulating body temperature and weight gain
- slower metabolism, fatigue and weight gain
- balance problems, joint laxity, shortness of breath and weight gain
- tightness in ligaments, fatigue, balance problems, slowed metabolism and weight gain

10. A pregnant woman should NOT train in which of the following environments:

- a traditional gym environment, weight room or group exercise class
- altitudes over 6,000 feet, and/or extreme heat and humidity
- an outdoor fitness venue such as a biking route or pool
- all of the above

11. What is the best way to gauge a pregnant woman's exercise intensity?

- Use the talk test or rate of perceived exertion (RPE) but not heart rate.
- Use the talk test, RPE and heart rate.
- Wear a heart rate monitor.
- Keep training at her preconception levels.

12. For the safety of her fetus, a pregnant woman should avoid:

- scuba diving, sky diving and hot yoga
- scuba diving, sky diving, hot yoga and swimming
- scuba diving, sky diving, hot yoga and weight training
- scuba diving, sky diving, hot yoga and indoor cycling

13. When assessing a pregnant client:

- avoid assessing her until after she has delivered the baby
- use only assessments that require her to lie flat on her back
- use modified assessments to gauge overall fitness, and do a mini-assessment before every exercise session
- rely on her obstetrician to perform fitness assessments

14. What have studies of elite and Olympic-level athletes shown?

- They often can keep exercising at rigorous levels and high intensities throughout pregnancy and deliver healthy babies.
- Their labor and delivery is often more difficult than it is for nonexercisers.
- They require less supervision because they understand not to put themselves at risk.
- They cannot increase their VO_2max during pregnancy.

15. A pregnant woman should stop exercising immediately if:

- she experiences warning signs like dizziness, headache and chest pain
- her friends and family warn her that exercise is dangerous
- she reads a blog on the internet about something she is doing
- she has a physician who does not think any pregnant women should exercise

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IT TAKES



PHOTO: © DAVID JOLES/MINNEAPOLIS STAR TRIBUNE VIA ZUMA WIRE



Life Time CEO Bahram Akradi may be self-made, but he knows this much: **For the world to be a fitter, healthier place, it takes all of us working together.** Learn how his never-say-never attitude is transforming how we define and approach health...

...for a second time.

BY LAUREN BEDOSKY

If you were to cross paths with Bahram Akradi, odds are even that he'd be looking sharp in a tailored suit or sharing a sweaty high-five in a Life Time tech-shirt-and-biking-shorts combo (and, inexplicably, *still* looking sharp). As always, he'd be smiling. This industry juggernaut has good reason for his perpetually positive outlook: He's poised to open a 120,000-square-foot "healthy-lifestyle village"—a three-story, diamond-level mega-facility in Edina, Minnesota, that for Akradi is the next logical step in a career defined by innovative and revolutionary moves

that have helped to transform the fitness industry.

"Basically, [the Edina location is] an entire healthy-living, healthy-aging, lifestyle community—all in one, rather than in bits and pieces," Akradi says. Once complete, the mall-based location (stepping deftly into the footprint of a former J.C. Penney) will offer all the amenities typical of a Life Time athletic club, including group fitness, personal training, an indoor pool and physical therapy. But that's just the tip of the iceberg.

"Fitness is part of what we do, and we do that exceptionally well," says Life Time's 56-year-old founder and CEO. "But Life Time is focusing on lifestyle, not just fitness." Thus, roughly 80% of this mega-center will be devoted to a profusion of other health-promoting services—all under one roof (which, incidentally, will also sport an *outdoor* rooftop swimming pool). These include a full spa, bistro and beach club, as well as comprehensive medical services offered by doctors, dietitians and exercise physiologists.

"We want to create a more environmentally friendly spot where there's less driving to the club," he said in a recent interview with the Minneapolis *Star Tribune*. "It can be a place where you can do services and shopping designed to save time, fuel and the planet."

A similar project is currently underway in Dallas, with even more distinct and forward-thinking features: In addition to the Edina model's four-star services, the Dallas project includes a subscription-based work-share space (Life Time Work) and apartments (Life Time Living), further cementing the union between healthy living and everyday life.

According to Akradi, Life Time has another 50–60 of these planned to span the country in the next 4–5 years. "We hope that, roughly, what's coming out of the pipeline is going to be one large lifestyle community per month," he says, "so [this will mean]

A VILLAGE

huge growth in the big lifestyle category.” These projects reflect Life Time’s work to define itself as something more than a typical health club.

The Beginning of Life Time

This isn’t the first time Akradi has shaken up the fitness industry, and it’s not likely to be the last. When he launched Life Time, he decided to break away from the long-term, tough-to-break contracts that members hated. It was an idea that came to him during his first foray into the fitness profession, which began shortly after he emigrated from Iran to the U.S. in 1978 to study engineering. To cover expenses, Akradi sold memberships at a major fitness-chain location, where he realized the importance of placing member interests front and center. Once Life Time appeared on the scene, other health club chains had to adopt hassle-free contracts to stay competitive.

Though it has been 25 years since he opened the very first Life Time facility in Brooklyn Park, Minnesota, Akradi continues to redefine the modern health club, setting the bar higher and higher for the rest of the industry with each of his new initiatives. Among them have been the addition of a member magazine (*Experience Life*), a proprietary line of nutritional products and supplements, corporate wellness programs, an athletic events and timing business, partnerships with companies for employee memberships, and other innovations that helped the company top \$1 billion in revenue in 2011. At press time in early September, the privately held company had facilities in 127 destinations across 27 states and in Canada, with more than 30,000 team members

(including some 10,500 fitness professionals) serving more than 1.8 million members.

To reflect the changing times and Akradi’s visionary goals, the company recently went so far as to drop “Fitness” from the company name. “We’ve chosen to be a big, broad lifestyle company,” Akradi says, “and when we call the company Life Time ‘Fitness,’ it mislabels what we’re involved in. You have to decide who you want to be and then work toward that.”

The Changing Face of Fitness

While traditional health clubs and gyms continue to focus on fitness, it’s clear that Life Time is broadening its scope to encompass the entire spectrum of daily life.

Though the strategy may (again) disrupt the health club industry, it’s less about that and more about creating an entirely new “healthy living” category. Given the current state of the consumer market, now is the perfect time to make a move.

“More and more people are interested in living healthy and fit,” says Akradi. “They’re engaging in far more variety of different physical activities at all times. And that’s going to continue.”

This high level of interest also means that more people than ever before are opening fitness studios and health clubs. “The challenge for our industry is that it remains a relatively low barrier to entry,” Akradi says, “so people can jump in and lease a little space and build something.” What’s more, he says, health and fitness is a category that people become very passionate about. “But what they’re not anticipating is that three other people just like them will have the

While traditional health clubs and gyms continue to focus on fitness, Life Time is broadening its scope to encompass the entire spectrum of daily life.

ANOTHER KIND OF LEAD-ERSHIP

One moment, Life Time CEO and fitness magnate Bahram Akradi is offering you a palmful of cherry tomatoes plucked from his own garden—“They’re like candies,” he says. “You can’t just have one.”—and the next, he’s recounting his recent finish time in the Leadville 100, a grueling Life Time-owned mountain-bike race that takes participants 100 miles through the mountains of Colorado every August. (His time—10 hours, 47 minutes—is next year’s goal to beat.)

Each year, Akradi and Tom Bergmann, Life Time’s executive vice president and CFO, train for and compete in this grueling endurance event, showing their employees that

even hyperbusy executives can prioritize exercise and nutrition.

And from the sound of it, the Leadville 100 isn’t for the faint of heart. “There’s no margin of error,” Akradi says of the event, “so any little hiccup, if you come in unprepared or a little overweight, it’s not going to work.”

Why add such an intense commitment to his already-full plate? Training for the Leadville 100 forces him to stick to a routine, which only serves to benefit him in other areas of his life. “I’m not a routine guy,” Akradi says. “I work hard, but I’m not disciplined, which means I want to do things when I want to, how I want to.

And this event is one of those where you don’t have that luxury.”

Discipline and determination are key to success in any endeavor. But for a forward-thinking CEO who is reimagining the health club industry, these qualities are a daily necessity. “For the foreseeable future, I see myself committing to doing something like [the Leadville 100] every year, because it will keep me on my toes.”

Think you’re ready to ride beside Akradi? Check out race details at www.leadvillerraceseries.com.



EACH YEAR, AKRADI AND TOM BERGMANN, LIFE TIME'S EXECUTIVE VICE PRESIDENT AND CFO, TRAIN FOR AND COMPETE IN THE GRUELING LEADVILLE 100 MOUNTAIN BIKING ENDURANCE EVENT, SHOWING THEIR EMPLOYEES THAT EVEN HYPERBUSY EXECUTIVES CAN PRIORITIZE EXERCISE AND NUTRITION.



same idea, until finally there are too many really good trainers and their studios. And eventually, everybody just struggles.”

To succeed in such a competitive market, Akradi indicates, differentiation is key. What makes you unique and special? You have to figure that out. Success also relies on keeping your finger on the pulse of the health and fitness industry: not only its past and present, but what the future has in store.

Predicting the Future of Our Industry

Akradi knows the modern health and fitness industry inside and out, and he sees two technological advances on the horizon that will converge to revolutionize the fitness industry in the next 6–10 years: mapping the human genome and advancing artificial intelligence.

As modern medicine advances, health professionals will get a clearer picture of the medical issues people are likely to experience, based on their genes. “Medicine will switch from backward correction to forward correction,” he says. Healthcare professionals will be able to either alter those genes or, “at a minimum, come up with custom-tailored lifestyle practices.” For example, if someone needs to lose weight to reduce his risk of diabetes, genetic testing may reveal the ideal exercise and nutrition prescription for his unique genetic makeup.

As our knowledge of biology advances, so too will computer science. Just as our phones have become what Akradi terms “supercalculators,” AI may eventually offer portable workout and nutrition advice that’s more accurate and logical than a flesh-and-blood trainer could deliver. And as AI merges with genetic advancements, this advice will be increasingly based

on a client’s chromosomal profile.

Akradi references the Watson technology currently available through IBM, which allows companies to converse with their customers via virtual robots, offer personalized recommendations based on a customer’s personality and tone, analyze and interpret data, and more. “[Right now,] Watson is not the size of your handheld [phone]; it’s a giant mainframe,” Akradi says. “But in the next half-dozen years, a physically smaller version of Watson will be a much better analytical thinker than a person.”

Once these technological advances take hold in the next decade, Akradi predicts the health club industry will look very different. He gestures to a smartphone sitting on the table. “When that little device becomes a better reasoning machine than our brain, it will replace a whole bunch of different kinds of jobs,” he says. Sensing the next question, he adds, “Trainers

In the future, artificial intelligence may offer portable workout and nutrition advice, requiring fitness pros to focus more on delivering emotional support.

BAHRAM AKRADI ON INNOVATION: TRY, TRY AGAIN

From the Perspectives blog by Bahram Akradi on www.lifetimefitness.com.

When you have an idea that you feel is worth pursuing, allow yourself to imagine, believe, act, and pursue it relentlessly. Every time it fails or falls short of your expectations, think of the next round of iteration as one more necessary step toward success. There is always a way—that is the mantra.

We are enjoying our lives largely due to the imagination and perseverance of generations before us. Now we’re doing our part to pave the way for future generations.

I believe in us. Humanity will prevail. Imagine. Believe. Act. Persevere. Repeat. (And never give up.)

GROW YOUR CAREER, SECURE YOUR FUTURE

NASM partners with Life Time to bring you unique opportunities.

“NASM is proud to be partnered with a fitness industry leader like Life Time Academy,” says Brad Tucker, vice president of sales and marketing for NASM and AFAA. “Our organizations are aligned to elevate the skills and science-based knowledge that give fitness professionals a distinct career edge. The hands-on practical training, education and experience students receive in the Life Time Academy quickly set them up for career success and even potential employment with Life Time.”

LEARN MORE:

NASM and Life Time Academy, two-world class fitness brands, have partnered to create a dynamic learning experience for current and prospective NASM-CPTs. The **Life Time Academy Master Professional Fitness Trainer Program** provides a comprehensive pathway to earn the NASM-CPT, Corrective Exercise, Performance Enhancement and Behavior Change Specializations (CES, PES and BCS), as well as valuable CEUs, and the Life Time Academy Graduate Certificate. Course materials include guided study, live workshops, interactive learning modules, lecture videos, textbooks, online materials, and more. The CPT Development Program includes a live 8-week (120-hour) externship at Life Time and graduates are guaranteed a job interview at Life Time.

Apply online at www.nasmacademic.com/lta, or speak with an NASM and Life Time Academy program advisor toll-free at (888) 649-3781.

**Bahram
Akradi at
Optima 2017**



This October, you can be in the same room with Life Time CEO and founder Bahram Akradi. He'll be in Scottsdale, Arizona, to keynote the NASM 2017 Optima conference, which brings together the strongest and most innovative minds in the fitness industry. There's still time to secure your spot, so clear your calendar for October 12–15! Learn more at www.NASMOptima.com.

can do a lot, still. And their job isn't going away, but their job is going to change.”

Fitness Pros of the Future

One day soon, a personal trainer's job will shift to focus less on managerial qualities and more on leadership qualities, says Akradi. Future personal trainers will be valued more for their personality, character, tenacity and commitment to clients' success. “It will be about encouragement, about goal setting; it will be about aspirations, emotional connections,” he says. “All the human factors that make trainers successful are going to be more important in the future.”

This doesn't mean knowledge of fitness and nutrition will no longer matter. In fact, trainers will have to work harder to stay in the know, Akradi says, “because you could be at a deficit to your device. You want to at least try to keep up if you can.”

Though we have yet to see exactly what the health club landscape (or the world, for that matter) will look like once these technologies become mainstream, you can be sure that Akradi will be prepared to lead Life Time through the inevitable changes. “Life Time is a forward-thinking company,” he says. “As always, we would be thinking about how to provide our trainers with the best technology, the best help, the best device and the best coaching, so they can continue being at the forefront of providing the best service.”

For the time being, Akradi will stay busy building Life Time's fleet of healthy-living centers and weighing in on construction details for the wellness village. “There's been so much negativity [in U.S. politics and culture] over the past year, and I don't know about you, but I'm ready to move forward,” he wrote in a summer blog post on www.lifetimefitness.com. “I'd like to see more . . . lifting up, [to see] a movement that brings us together—whatever our differences—to create a more positive culture.” He has begun “practicing more positivity” in his everyday life, “and I would love for you to do the same,” he tells readers.

Surely, if past performance is any indication of future success, Akradi may be just the man to spark positive change that extends far beyond fitness-center walls. “Together, we can begin to transform into a healthier, more constructive society by choosing to focus on what's good every day,” he wrote. “Let's see if our efforts can create a positive movement and contribute to a healthier, happier world. I believe they can.”



LAUREN BEDOSKY is a Minneapolis-based health and fitness writer. She writes for a variety of magazines, which include *Runner's World* and *Experience Life*. She can be reached at laurenbedosky@gmail.com.

“Together, we can begin to transform into a healthier, more constructive society by choosing to focus on what's good every day. Let's see if our efforts can create a positive movement and contribute to a healthier, happier world.

I believe they can.”

—Bahram Akradi

Sweat TOGETHER? Get TOGETHER!

Use these engagement methods to help members connect, build bonds and form fitness friendships that keep them coming back for more.

Why are some classes filled with people who chat before class and go to lunch afterward, while others begin with pre-class awkward silence and avoidance of eye contact until the teacher starts cuing?

The ability to establish a community where participants relate to and support each other is one that group fitness leaders can develop and strengthen. Instructors are instrumental in creating a space where members engage member-to-member, not just member-to-leader.

Group instructors have the opportunity to apply specific, tangible skills that encourage a true “we’re in this together” experience.

Reap the ironic satisfaction that your class participants would happily keep socializing with each other even if you did not show up. Feel successful that they are almost disappointed when you cut into their social time to start the workout. There’s nothing like such bonding to retain members, create a positive environment and start each class with vibrancy and energy already high.

BY KYMBERLY WILLIAMS-EVANS, MA





AN INSTRUCTOR IS PART PARTY-HOST:
SET THE TONE AND HELP MEMBERS MINGLE,
THEN WATCH THEM BECOME FRIENDS.



While the following suggestions are straightforward, their cumulative effect shifts the classroom dynamic dramatically and immediately.

Before the Workout Begins

“Creating community in my classes is one of my top priorities,” states Kristen van Sweeden, an AFAA-certified instructor based in Columbia, Maryland, who has served as a group fitness manager, group fitness consultant for fitness facilities, and a master trainer in multiple formats. Otherwise, she says, “It’s just people working out in the same room and not really group fitness. Engaging with participants before class sets the tone.”

MAKE THE FIRST MOVE

Van Sweeden’s goal is to make members feel comfortable—with themselves and each other. “Approach your participants as they wait for class. They have come

because they don’t want to work out alone, so facilitating a conversation can be a great way to break the ice, ... and they really take it from there.”

Julie Schatz—a Los Angeles independent instructor and trainer who is licensed in multiple formats and holds AFAA and Functional Aging Institute certifications—concurs that bonding starts before the workout. Schatz’s tips: “Approach every class with excitement and a sense of fun. Be the members’ best friend and party host.” Good hosts know to mingle and introduce people to one another; therefore, “meet and get names of as many students as possible,” she advises.

CREATE CONVERSATION STARTERS

Learning names is important, as well, to Melanie Douglass, RD, a group fitness instructor in Logan, Utah, and director of business development for Yes! Fitness

Music. She prefers to memorize one or two names per class session. As she builds her cache, she uses names of participants who seem comfortable with that. Then others pay attention and start to think, “Oh, her name is Mindy” or “Mindy likes planks? So do I!” Douglass might say, “Mindy, I love your new shoes,” giving other participants an opening to approach Mindy and talk about shoes after class. “The trick is to find ways to promote members learning more about other members in a neutral or positive way,” Douglass states.

ENCOURAGE SHARED EXPERIENCES

Announcements are another mechanism to build community. Share participants’ birthdays and milestones. Welcome back members from travel adventures. Ask closed-ended questions that require a raise of hands to show commonality. For instance, “Who is attending tomorrow’s fundraiser?” or “How many of you tried the new class yesterday?” The more participants know about each other, the more they are inclined to relate to one another.

“The beginning and close of class are key to success. We remember best what we hear first, and second-best what we hear last.”

—Terry Eckmann, PhD, professor, presenter, author and longtime fitness professional

During Class

While pre-class connections are key, the astute instructor employs bonding strategies from start to end. Terry Eckmann, PhD—a professor at Minot State University in North Dakota and a longtime fitness professional, presenter and author—notes that “the beginning and close of class are key to success. We remember best what we hear first, and second-best what we hear last.”

Schatz recommends using names “during warmup and throughout the workout session” and include them in “simple acknowledgements such as, ‘Thank you for coming today, Felicia, Gina and Cory.’”

Also, remember that good bonding techniques apply to all class modes, not just high-energy workouts. Feeling comfortable and part of a safe community is perhaps even more vital in “quiet” classes. Try these suggestions to foster a strong bond:

GIVE PERMISSION TO REACH OUT

Maya Griggs Acosta has the challenge of teaching new guests each week as an instructor for Rancho la Puerta fitness resort in Tecate, Mexico. With over 700 hours of training and certifications in yoga, Thai massage, and Nia, Griggs Acosta specializes in mind-body classes. Whether leading yoga, sound healing, meditation, circuit training, TRX® or dance, she endeavors to cultivate a safe and nurturing space for “Ranch” guests.

In her sound healing classes (in which participants sometimes fall asleep), Griggs Acosta creates a supportive environment in this way: “When everyone is settled, I invite people to look right and left to see who is next to them and say hi. I mention that if your neighbor starts snoring, you have permission to give them a love pat on the shoulder. I acknowledge that snoring can happen to the best of us, so please be comfortable reaching out to your neighbor. I follow this (with) alternative positions to mitigate snoring. I usually get a few laughs, which lightens the mood and gets people more connected.”

PAINT A VERBAL PICTURE

Thoughtful cues make a difference as well, Eckmann points out. “Throughout class, I use transformational language to make the group feel we are on the yoga journey together. I might say, ‘Our class today will

The Psychology of Group Interaction

Learn to use counseling strategies to create exceptional cohesion in your classes.

Alexandra Williams, MA, a group fitness professional with 35 years’ experience, is known for creating interactive, harmonious exercise classes, whether teaching university students or older adult club members in Santa Barbara, California.

While pursuing her graduate degree in systemic counseling, Williams learned the importance of *facilitating* groups rather than leading them. “While it’s clear that fitness professionals, like counseling group facilitators, are in *control* of the group of participants, it’s not necessary for us to be in *charge*. The best way to get people to trust us is for us to trust the process.” Successful group facilitators give the group power to act instead of merely react and to participate instead of just listen.

Here, Williams shares insights into how groups can function successfully using a process she learned in grad school—*Forming, Storming, Norming and Performing*, introduced by Bruce W. Tuckman in 1965.

STAGE 1: FORMING

In this phase, the fitness pro establishes basic ground rules, identifies similarities and gets the group to agree on common goals. Members begin to make contact, with some bonding, though they are still dependent upon the leader. The leader also introduces new members or club updates, asks people to put away their phones or announces something like, “Today we are all going to work hard and do our best.”

STAGE 2: STORMING

The group improves communication, identifies resources, begins to express differences of ideas and opinions, identifies power and control issues, and reacts to leadership. The members are still independent or resist depending on each other.

If serious conflict is going to occur, it’s usually in this stage. To get past this, the group fitness pro needs to get the group back on track in order to keep the group cohesive.

For example, this is something plausible a teacher might say if there’s a conflict over music volume: “Please raise your hand if you want the music louder. Now raise it if you want it quieter. And if you are too shy to raise your hand, give me the double eyebrow when I get to the choice you want.”

STAGE 3: NORMING

Once the group successfully gets past storming, they are in the norming phase, which is very rewarding. Members agree about roles and the process for solving differences. Decisions are made through negotiation and consensus. This is when you, as the instructor, walk in and find the group members chatting, welcoming new people and giving off a happy vibe. They’re glad to see you, of course, but they don’t need you to be there for pre-class conversations, as they have already learned how to interact independent of you.

STAGE 4: PERFORMING

The performing stage is where you’ll find the best group fitness professionals. Members are achieving effective and satisfying results, finding solutions to problems (for example, moving the new people to the front where they can see, helping each other get out weights and mats, etc.), working collaboratively, are independent, and obviously care about one another and you.

If you are able to encourage class participants to talk to each other and to use you as a resource instead of a “tour guide,” you will create a happy, cohesive group. Rather than exercising individually inside a group class, they will consistently show up to work out with their friends. And that will be *transforming!*

REFERENCE

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focus on bringing balance to our body and mind. As we come out of tree pose ... feel the energy of those around you as you transition to a balancing chair.' We close each class by greeting those around us with 'namaste.'" There is a positive energy that surrounds the group.

BREAK WITH TRADITION

Schatz suggests mixing up spacing and class positioning. "In classes with repeated choreography, such as Zumba®, create camaraderie by changing class arrangement. Drop off from the front, and blend in with the group during repetitive sections of songs." You might divide the class into two so that each half faces each other to mirror movements, or take turns dancing for each other in a friendly dance battle that you lead. Set up a soul train,

partnering students to go down the center together. "Participants love to rise to the challenge and see each other cut loose, as well as having me more as a fellow participant," says Schatz.

"Competition can be a great way to get people to interact. I like to use a class-versus-instructor scenario so (participants) can unite against the person who is making them do 15 burpees in a row: Me."

—Kristen van Sweeden,
an AFAA-certified
instructor and
Master Trainer

USE PEOPLE PAIRINGS

Tamara Grand, a certified personal trainer, Meno-Fitness™ Trainer, group fitness and online fitness coach who blogs at FitKnitChick.com from Port Moody, British Columbia, finds partner work to be a great tool. "Whether it's working together to complete a task, having one partner count reps for the other or simply sharing equipment, partner drills allow friends to socialize a bit during their workouts, as well as encourages new participants to feel like a member of the class," she says. "I always ask partners to introduce themselves to one another

before the drills begin and then to thank each other afterwards (especially if the drill involved a resistance band and nobody let go). For some participants, partner work provides an opportunity to push themselves further with a little friendly competition."

FOSTER FRIENDLY COMPETITION

Van Sweeden agrees that competition can inspire interaction. "I like to use a class-versus-instructor scenario so (participants) can unite against the person who is making them do 15 burpees in a row: Me."

"Another example (of implementing) friendly competition is in my cycle class when we have a speed section," continues van Sweeden. "I pick two or three participants whom I know won't feel uncomfortable to take turns leading the pack and setting the pace. I usually start off (the race) then kick it over to my first participant by having him or her pedal just a little faster than the rest of us, then I cue the next person and so on. Once you get them to play along, it really creates unity in a class."



FRIENDLY COMPETITION IS EVEN BETTER IF YOU'RE DOING THOSE PUSHUPS, TOO—AND MEMBERS HAVE A CHANCE TO OUTSHINE YOU.



TALKING ABOUT YOUR INTERESTS AND ASKING MEMBERS ABOUT THEIRS CAN INSPIRE THEM TO SHARE WITH EACH OTHER.

At the End of Class

Use this less hectic time to reflect, reconnect and reach out again. Instructional cuing is often less necessary, which gives you more time to facilitate member-to-member awareness. As well, exercisers tend to be more relaxed and open to one another postworkout.

SHARE TIPS, STORIES AND GRATITUDE

Douglass likes to converse during cool-down: “I might bring up my latest healthy food or food hack for busy people. I alternate [telling] personal stories with asking the group about their social interests, such as weekend plans or what they liked about the workout.”

Eckmann uses the last minutes as a time to have participants acknowledge each other. She leads into savasana by creating a sharing circle, encouraging participants to introduce themselves and share from the heart. She might cue her members to express “one thing I am grateful for” or “one kind thing I did today” or to discuss a topic from The Four Agreements Cards,

created by Don Miguel Ruiz.

Similarly, Schatz ends her classes with three deep breaths combined with stretching. As she puts it, “On the third breath, I have (participants) catch the great energy we have created and bring it to heart center, reminding them to keep a lot of it, and share some, for together we all change the world for the better. This leaves the group feeling quite connected, satisfied and inspired.”

Creating a Culture of Support

When people know they are in a positive space, they are more likely to reach out to those around them. As Griggs Acosta recognizes, “We’re all human and trying our best. People want to feel accepted where they are and supported in their transformation. When we reframe something such as snoring into something that is natural and okay, the group is there for support. Connectivity, humor and kindness go a long way in creating a cohesive group environment!”

As group leaders, we really do have the

power to transform our separate individuals into one happy group. Ultimately the responsibility and privilege starts with us and who we are with our members. As van Sweeden explains, “By letting my participants know who I really am, I can create an environment where they can be who they are as well. When they feel comfortable (with me and themselves), it is easier for them to open up and get to know everyone in class, not just me.”

In the succinct, yet wise words of Schatz, if you want your members to show up week after week, engage and enjoy your classes, and ultimately reach out to each other, then “Be authentic. Be you!”



KYMBERLY WILLIAMS-EVANS, MA, has groups that are so chatty she has to flick the lights to get their attention to start class. She blogs at funandfit.org and teaches in Santa Barbara, California.

Built to Order: Strength and Size Require Different Approaches

BY KYLE STULL, DHSC, MS, LMT,
NASM-CPT, CES, PES, CSCS

ASSIST CLIENTS IN UNDER-
STANDING KEY DIFFERENCES
BETWEEN TRAINING FOR
MUSCULAR HYPERTROPHY AND
MAXIMAL STRENGTH—AND
HOW PROGRAMS GROUNDED IN
EXERCISE SCIENCE CAN HELP
THEM ACHIEVE THEIR GOALS.



The desire to increase muscle size and strength have inspired their fair share of fads and pseudoscience, promising impressive gains if you do this or buy that. There is something to be said for trends inspiring innovation, but for clients who are serious about achieving maximal strength or hypertrophy (muscle growth), training is not a guessing game. Following a science-based system will always be the best place to begin.

Decades' worth of studies have led to the creation, testing and retesting of highly effective evidence-based models (see "Charting a Course for Clients") that can help exercisers achieve these goals. Here, we'll discuss training for hypertrophy versus maximal strength—a difference that some experienced exercisers may not realize exists—and how to design a program that best meets each client's goals.

Size, Strength and How They're Related

HYPERTROPHY is the increase in the size of existing skeletal muscle fibers (Goldberg et al. 1975). The National Academy of Sports Medicine (2018) defines it as "the enlargement of skeletal muscle fibers in response to being recruited to develop increased levels of tension, as seen in resistance training. [It] is characterized

by an increase in the cross-sectional area of individual muscle fibers resulting from an increase in myofibril proteins (myofilaments)."

Factors such as muscle tension, muscle cell disruption and resultant metabolic waste in and around muscle fibers cause this *cellular adaption*. The effects can often be felt 24–48 hours after training in the form of delayed-onset muscle soreness. However, it usually takes up to several months for visible changes to occur, as they happen only after thousands of individual muscle fibers have grown larger (Staron et al. 1994). Increasing hypertrophy has historically appealed to people such as bodybuilders who seek maximal (and observable) muscle growth.

STRENGTH is the ability of the nervous system to recruit as many muscle fibers as possible when needed. NASM (2018) defines strength as “the ability of the neuromuscular system to produce internal tension (in the muscles and connective tissues that pull on the bones) to overcome an external force [or external load].

Strength is considered a *neuromuscular adaptation*, which means it is largely dependent on the nervous system’s ability to communicate with the muscular system as demonstrated by Weier, Pearce & Kidgell (2012), who found that the brain displayed structural changes in the beginning weeks of a strength training program. Strength is important not only for sports performance, but also for day-to-day life, as it supports lifting and moving about the environment. *Maximal strength*, specifically, is “the maximum force an individual’s muscle can produce in a single voluntary effort, regardless of the rate of force production” (NASM 2018).

So, how are the two related? An individual with more muscle mass has larger muscle fibers, and this could generate more tension leading to increased strength. An individual who displays strength may be able to train longer, which can encourage muscle fibers to grow larger leading to hypertrophy. Therefore, training for one will impact the other. However, to significantly develop either hypertrophy or maximal strength, specific (and differing) training programs must be followed.

Training Variables That Affect Size and Max Strength

Several important variables ultimately determine whether a program will lead to muscle growth or increased strength. Five key variables discussed

here are: 1) intensity, 2) repetitions, 3) rest period, 4) sets and 5) exercise selection. While these variables are discussed separately, they are all intricately interwoven.

INTENSITY

For hypertrophy to occur, all muscle fibers involved need to be stressed, damaged and fatigued. Different types of muscle fibers fatigue at different rates and under different conditions. The intensity must be high enough to generate stress, but low enough to allow sufficient repetitions for fatigue. Hedrick (1995) suggested that a moderate intensity (75–85% of 1-repetition maximum) is sufficient.

In order to improve strength, the body must be significantly overloaded. Recall that strength is a neuromuscular adaptation, so the connection between the nervous system and the muscular

system must speed up. Neuromuscular changes can happen quickly for the untrained individual, but gains quickly fade off if the load is not increased. Therefore, for more than just foundational levels of strength, an individual is encouraged to work out with intensities of 85–100% of 1-RM (NASM 2018).

The tricky thing about intensity is that it is not generalizable to all exercises. For example, someone’s bench press will be much different on a flat bench than on an incline. To establish a true estimate of how much an individual can lift, they must be tested on different exercises.

REPETITIONS

The acute variables of intensity and reps work closely together. As intensity goes up, reps must go down.

Hypertrophy, which occurs at a moderate

Training for maximal strength will impact hypertrophy, and vice versa. But for significant gains in either, specific (and differing) programs must be followed.

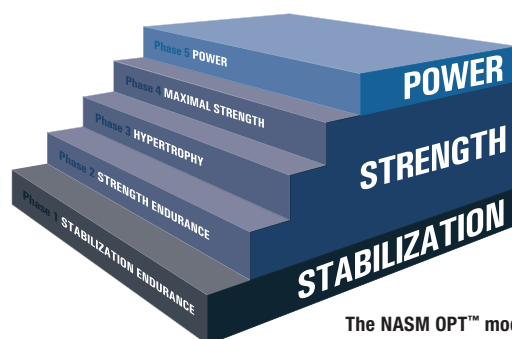


Charting a Course for Clients

The science of exercise likely began in 1569 when Italian physician Gerolamo Mercuriale published a book detailing studies on how the Greeks and Romans approached diet, exercise and treatment of disease (Ford 1955). Since then, thousands of studies have been done on these subjects, leading to the creation of the evidence-based NASM Optimum Performance Training™ model, which progresses clients safely through three levels of training (at right), including the Strength Level, which includes Phase 3: Hypertrophy and Phase 4: Maximal Strength (NASM 2018).

The acute variables utilized in the NASM OPT™ model integrate the same scientific principles mentioned in this article, along with much of the same research. The OPT model is designed to take the guesswork out of training and provide personal trainers a proven reference guide.

Below are examples that show the differences in training protocols for hypertrophy versus strength.



The NASM OPT™ model

SAMPLE PROGRAMMING: HYPERTROPHY VS. MAXIMAL STRENGTH

CLIENT 1

GOAL: HYPERTROPHY (OPT PHASE 3)

EXERCISE	INTENSITY	SETS	REPS	TEMPO*	REST
Squat	80% 1-RM	4	8	2/0/2	60 sec
Deadlift	80% 1-RM	4	8	2/0/2	60 sec
Sagittal plane lunge	75% 1-RM	3	10	2/0/2	60 sec

CLIENT 2

GOAL: MAXIMAL STRENGTH (OPT PHASE 4)

EXERCISE	INTENSITY	SETS	REPS	TEMPO*	REST
Squat	100% 1-RM	6	1	X/X/X	4-5 min
Deadlift	90% 1-RM	4	2	X/X/X	4 min
Leg press	85% 1-RM	4	4	X/X/X	3 min

*Tempo: 2/0/2 means 2 second lift, 0 second hold, 2 second lower;
X/X/X means as fast as possible with control.



intensity and tempo, should be performed with a moderate number of reps. Hedrick (1995) and Schoenfeld (2010) suggest that the repetition range should be 6–12. If an individual is performing a lift at 85% of 1-RM, he should aspire to complete 6 repetitions. Conversely, performing a lift at 75% of 1-RM warrants about 12 repetitions. (Note: A person beginning hypertrophy training should perform more reps at a lower intensity, slowly increasing intensity and decreasing reps over time.) The repetition tempo is 2/0/2, which is 2 seconds eccentric action, 0 seconds isometric hold and 2 seconds concentric contraction (NASM 2018).

Training for maximal strength occurs at higher levels of intensity. Thus, the repetitions must be drastically lower. Campos et al. (2002) identified that the neuromuscular changes of strength training occur at 1–5 repetitions. The repetition tempo for maximal strength is as fast as can safely be controlled, shown as X/X/X (see sidebar).

REST PERIOD

The moderate repetitions and intensity of hypertrophy training necessitates a moderate rest period of 60–90 seconds (Hedrick 1995). A longer rest period may reduce the hypertrophic effect of training; whereas a shorter recovery may not allow completion of the sets required to induce hypertrophy.

Training for maximal strength is much different: When training at near-maximum intensities, near-maximum recovery is required. Studies suggest that 3–5 minutes are needed for a muscle group to recover completely (Willardson & Burkett 2006). If the rest period is too short, the lifter will not be able to complete multiple sets at the high intensity, typically resulting in minimal to no increases in strength.

SETS

Muscles do not naturally want to grow; they must be forced to grow through consistent periods of stress. Therefore, higher volumes of training have been found to yield better results for hypertrophy

(Hedrick 1995). Typically, 3–5 sets are recommended for optimal hypertrophy.

Conversely, the development of strength may occur with a moderate volume. For this reason, Peterson et al. (2004) suggested that 2–6 sets were ideal for improving strength, with the NASM guideline being 4–6 sets (2018).

EXERCISE SELECTION

For both strength and hypertrophy, multijoint exercises are highly recommended. These are foundational movements such as squats, bench presses, deadlifts, shoulder

presses and rows.

Schoenfeld (2010) suggested that multijoint exercises are ideal for hypertrophy because they promote uniform growth of muscle tissue, which is essential for maximizing overall muscle girth. It's worth noting that hypertrophy training also requires variety. Muscles have many different attachment sites with fibers running in many different directions. Therefore, performing similar exercises at various angles and in different positions will enhance the muscle growth effect.

Strength similarly benefits from foundational lifts, which integrate more muscles (prime mover, stabilizer, synergist, etc.) than single-joint exercises do. Therefore, multijoint moves lead to more improvements in strength overall. In a segment produced by T-Nation, notable strength coaches Bret Contreras, Brad Schoenfeld & Charles Staley add that specificity matters (to get strong in the squat, you need to squat) and that secondary lifts can be used to address weak points (Contreras 2013).

Training for Strength and Size Simultaneously?

Many people think (and train) as though hypertrophy and strength occur at the same time. In fact, many training variables

do overlap. For example, higher-intensity hypertrophy training meets the lower-intensity needs of strength, which leads to some strength increases. However, it is a very small window of overlap. To more effectively achieve the two, training hypertrophy and strength as separate entities will yield the best results.



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For both strength and hypertrophy, multijoint exercises are highly recommended. These are foundational movements such as squats, bench presses, deadlifts, shoulder presses and rows.

PHOTOS: ZUMBA



STRONG BY ZUMBA'S COMBO OF CUSTOM-CREATED MUSIC AND HIGH-INTENSITY BODY-WEIGHT EXERCISES IS TOUGH ENOUGH TO ATTRACT THE HARD-CORE, ATHLETIC CROWD, INCLUDING THE MALE MARKET.

STRONG Group Ex: Kick Up the Intensity

ZUMBA'S NEW FULL-BODY HIIT FORMAT CREATES INTRIGUING POSSIBILITIES FOR STUDIOS AND INSTRUCTORS.

BY STEPHANIE VLATCH, MS

High-intensity interval training (HIIT) has rich potential for delivering results to our members. Indeed, the science-backed benefits of HIIT have propelled it into increasing numbers of group-exercise schedules—notably because it helps people get better results in less time. In 2016, the creative minds at Zumba decided to bring HIIT to their legions of fans worldwide.

The result was STRONG by Zumba®, a music-driven, sweat-inducing version of HIIT group exercise that's appealing to at least four kinds of fitness professionals:

- Zumba instructors looking to add STRONG classes
- Group instructors looking for an opportunity to add HIIT classes
- Group instructors looking for already curated music and choreography in the HIIT space

- Personal trainers looking to add a HIIT format to their repertoire

The Basics of HIIT

Before we dive into the specifics of STRONG by Zumba, let's review the fundamentals of HIIT.

High-intensity interval training is versatile enough to meet the distinct needs of a diverse population of exercisers, but not all HIIT formats are created equal.

The strenuous, compound nature of these exercise routines requires that they be designed properly and taught correctly to prevent injuries. High-quality HIIT workouts should do the following well:

PROMOTE SPECIFIC ADAPTATION

The principle of specific adaptation to imposed demands (SAID) is that the body eventually adapts to the stress put on it. If you don't challenge yourself, you won't change. In group exercise, it's easy to promote SAID by altering variables such as resistance, intensity, training methods and movement choice.

"An important component of programming is including options for increasing

physical demands to continually help participants make fitness gains,” says Stacey Penney, MS, NASM-CPT, CES, PES, FNS, content strategist for the National Academy of Sports Medicine. “This allows participants to avoid plateaus and maximize results.”

STIMULATE EPOC

Excess postexercise oxygen consumption is the amount of oxygen the body must use to restore its normal state (homeostasis) after a workout. “Think of it as the extra energy it takes to run the air conditioner to cool the house down after the oven has been on,” says Penney. “Metabolic and interval training offer great EPOC boosts, and the perk of EPOC is that it results in extra calories being burned for hours after the workout is finished.”

Intense exercise stimulates EPOC. As you exercise at higher intensity levels that lead you farther from your pre-exercise state, your body has to expend more energy to return to homeostasis. During recovery, the body rapidly attempts to return to “normal,” greatly elevating energy expenditure.

ADD RESISTANCE

Resistance training is critical to achieving muscular definition, strength and endurance. As we become stronger, so do

our workouts, making future workouts more effective. Research suggests that high-intensity resistance exercise disturbs homeostasis more than cardiovascular exercise does, causing a larger energy requirement and higher EPOC (Reynolds & Kravitz 2001). Hence, HIIT workouts combining cardio and strength training further encourage adaptation and the EPOC effect.

EMPHASIZE SAFETY

HIIT workouts are strenuous, but if done properly, they can be effective for most apparently healthy individuals. “Intense exercise” can be individually defined. For instance, some people may find a low-impact jumping jack to be intense enough to elevate the heart rate to a challenging level, while others may need a traditional jack. Participants requiring even more can do plyometric jacks turn-

ing in a circle. A well-programmed HIIT workout should allow modifications to be easily applied to all movements and/or segments, meeting the diverse needs of members.

And don’t neglect recovery. “Encouraging rest and recovery is an important component of programming to avoid exhaustion,” Penney says. “You can’t perform at your best if you are stressing your body *all* the time.”

MOTIVATE PARTICIPANTS

Motivation keeps people coming to our classes. As program directors and instructors, we need to choose formats that attract participants and keep them motivated during class. It’s a mutually dependent relationship: Movement choice, instructor demeanor and, of course, music are huge motivators. A group exercise format should remain simultaneously fun and effective to keep attracting participants and pushing them harder to reach their goals.

STRONG by Zumba at a Glance

- >> A full-body HIIT workout that combines cardio, resistance and plyometric exercises
- >> Music-driven, with beats and rhythms composed to sync with the movements
- >> Designed to be adaptable to needs of diverse exercisers
- >> Body-weight resistance that is attractive for those who aren’t interested in weightlifting
- >> Completion of SBZ Training earns 8 AFAA CEUs

A STRONG Approach to HIIT

If you’re looking for a new and exciting addition to your HIIT offerings, STRONG by Zumba is worth a look. First, make sure you understand that STRONG is not a dance class like traditional, cardio-driven Zumba: It’s a science-based HIIT

format synced with music to create a unique full-body workout.

“STRONG by Zumba is not just a new program, it’s a HIIT experience,” says Darren Jacobson, senior vice president for instructor programming at Zumba. In this HIIT format, cardio, plyometrics and resistance-style body-weight exercises are all synced with music to motivate class participants to push harder. As Jacobson puts it: Your clients get “a challenging yet safe and effective way to increase their fitness level beyond plateaus to achieve full-body transformation.”

Synced music is integral to the STRONG philosophy. “The moves and routines are first created, then this content with no music is sent to our producers, who



5 Key Components of HIIT

High-intensity interval training (HIIT) has five crucial components. Here's how they work in **STRONG** by Zumba:

Key Component	In Traditional HIIT	In STRONG by Zumba
Adaptation	Working out at progressively higher intensities forces the body to adapt to new demands.	The 4-quadrant setup moves exercisers from a high-energy warmup to increasingly challenging HIIT sets, ending with some serious floor-work.
EPOC	After exercise stops, EPOC means the body keeps burning calories while it works to restore homeostasis.	Combining high-intensity cardio with high-intensity resistance training increases workout energy expenditure and EPOC.
Resistance	Strength training at gradually higher intensities builds muscle and triggers EPOC.	Body-weight moves deliver a challenging yet safe and effective way to increase fitness level beyond plateaus to achieve full-body transformation.
Safety	HIIT workouts need to be individualized—and to include rest and recovery—to be appropriately challenging for each participant.	Active recovery and rest are built in to the format and modifications and switch-outs mean nearly every individual can take class successfully.
Motivation	Exercisers rely on the inspiration and guidance of instructors and trainers to stick with their HIIT programs.	Recognizing the power of music to drive motivation, this format incorporates music custom-created to sync every move and every beat.

then create the music to fit the moves—every move, every beat—to drive and enhance the class experience and boost motivation,” Jacobson says. “We use this reverse-engineered process of creating music to drive home the fact that music can make you work at an entirely different fitness level.

“In most fitness classes, it is the opposite: Music is given to the instructor and moves are then developed or choreographed to that music,” Jacobson says. Zumba teamed up with top music producers like Timbaland and Steve Aoki

“to revolutionize high-intensity training.”

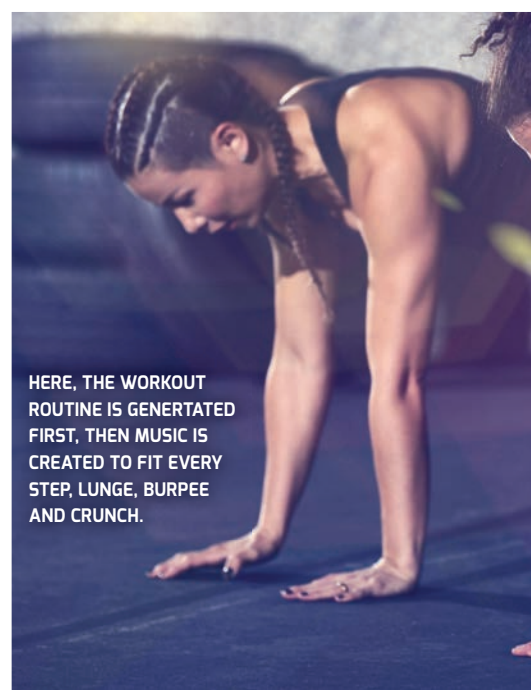
Zumba spent 2 years crafting **STRONG** before launching it in 2016. The end product encompasses all the necessities of proper HIIT design, creating the potential for a safe, effective, results-driven workout that attracts traditional Zumba fans as well as those who want a pure HIIT experience.

The Flexibility of **STRONG**

STRONG by Zumba classes consist of four distinct quadrants with specific goals designed to build the workout's intensity progressively and systematically: Quadrant

1: Ignite (a warmup), Quadrant 2: Fire Up (HIIT exercises), Quadrant 3: Push Your Limits (combos or supersets of Fire Up moves) and Quadrant 4: Floorplay (core and other floor exercises). The intense nature of the workout and varying modes of exercise encourage SAID and EPOC, ultimately improving results.

“We implemented **STRONG** by Zumba as soon as it was released, and now it's a successful class on our schedule,” says David Harper, a 25-year industry veteran and regional director of group fitness for Crunch Fitness in Central Virginia and



HERE, THE WORKOUT ROUTINE IS GENERATATED FIRST, THEN MUSIC IS CREATED TO FIT EVERY STEP, LUNGE, BURPEE AND CRUNCH.

Charleston, South Carolina. “It’s important for me to implement formats in our clubs that encourage cross-training to prevent overuse injury and achieve maximum results. In that sense, STRONG by Zumba is a great addition to our schedule.”

The STRONG format’s resistance component relies on body weight, helping the classes attract participants who may be intimidated by strength training, as well as those who enjoy resistance training but not necessarily traditional weightlifting.

“I really like the body-weight training component of this workout,” says Karen Hodges, certified STRONG by Zumba instructor at B.R. Ryall YMCA in Glen Ellyn, Illinois. “With body-weight training, people don’t even realize that they are weight training, yet still gain all the benefits.” Moreover, body-weight exercises such as push-ups, burpees and plank jacks are tough enough to interest the hard-core, athletic crowd, including the male market that is a challenge for group exercise programs to attract.

Most importantly, the STRONG format stresses safety, focusing on recovery and making it easy to modify programming. Active recovery is built into the format,

with rest periods after each of the four quadrants. It’s also designed so it can be changed to suit individual needs.

“As an instructor, you can easily adapt the workout to all fitness levels by modifying the exercise selection with switch-outs and modifications so that nearly everyone can take the class, be successful and progress,” says Jacobson. Hodges agrees: “I can easily adjust each quadrant by modeling the modification before the more intense movements.”

In STRONG by Zumba, cardio, plyometrics and resistance-style body-weight exercises are all synced with music to motivate class participants to push harder.

Popularity Rising

From January 2017 to date, STRONG by Zumba has seen a 180% growth in the number of classes added to club schedules. In its first year, tens of thousands of instructors have been trained in over 115 countries, says Jacobson. And you don’t have to buy additional equipment.

“Budget can be a major factor when considering new formats for our clubs,” says Harper. “I am always looking for formats that don’t require new equipment purchases.”

Furthermore, like all Zumba programs, there are no license fees that gyms need to pay. The cost to be a STRONG by Zumba instructor is paid by the indi-

vidual instructor who holds the license (see special offer below).

“I have a lot of fun teaching STRONG by Zumba,” Hodges says. “The beat of the music is motivating, and it drives my class and me to work harder. I love seeing members reach their fitness goals.”

If you’re interested, Jacobson says, look for the STRONG by Zumba Master Class tour coming to a city near you, check out a live class, visit strong.zumba.com, or email gyms@zumba.com for more information.



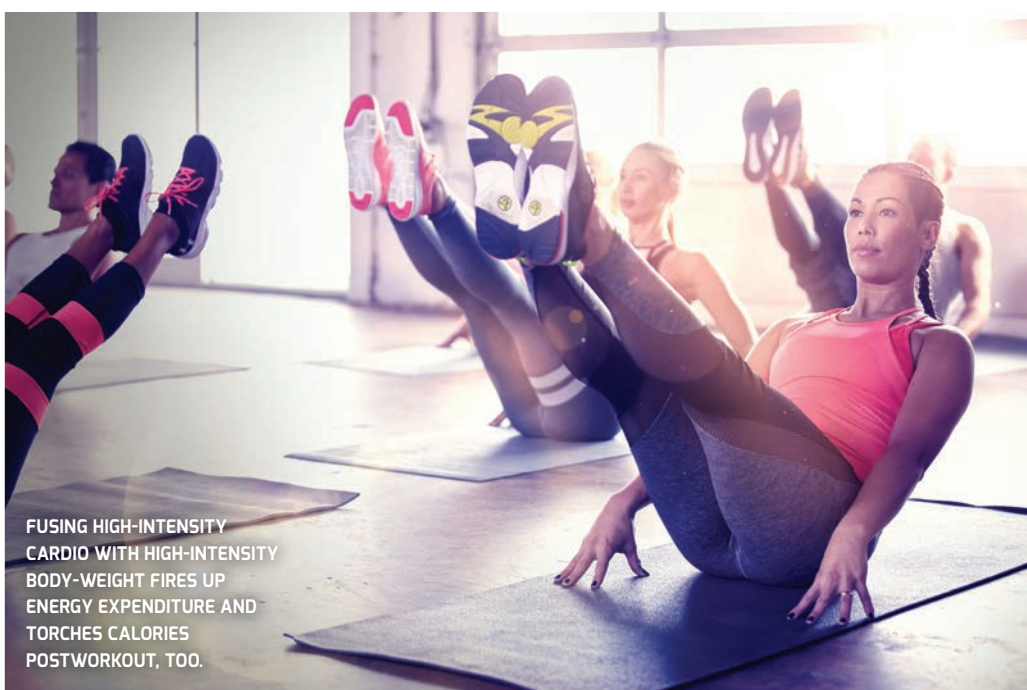
STEPHANIE VLACH, MS, is a 20-year fitness industry veteran with experience at the corporate, club and educational levels. She is a faculty member, group fitness instructor and writer.

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Fight the Fat Confusion

Swapping “bad” fats for “good” (olive oil, fish oils, nuts) may help reduce cardiovascular events as much as taking statins.



While it may seem as if “everyone” knows to limit saturated fats for health reasons, your clients may not understand what those health reasons are ... or what to do next. Recently, Sacks et al. released a new Presidential Advisory published on behalf of the American Heart Association in *Circulation* reaffirming the evidence of the beneficial role that unsaturated fats—specifically when swapped for saturated fats—may play in cardiovascular health [2017; 136 (4)]. In fact, new figures suggest this fat swap may help reduce cardiovascular events by as much as 30%, on par with the reduction observed from cholesterol-lowering drugs such as statins.

So how do you help your clients use this information, yet stay within your scope of practice? Perhaps a bit of education could do the trick. You can certainly tell them that saturated fat raises LDL cholesterol, a leading cause

of atherosclerosis, and that it increases the risk of cardiovascular disease, but be prepared to explain all those terms (or direct them to the AHA website: www.heart.org). Help them see the link between almonds and a reduced risk of stroke or heart attack, and they might find fat swaps worth a try. Here are some other fat facts you might share:

- Saturated fats should make up less than 10% of daily calories, per the AHA (and 60 years’ worth of research).
- Reading labels is smart and makes you look hip and cool.
- Swap saturated-fat foods with healthy ones, *not* junk food carbohydrates.
- Be wary of food trends. The recently popular coconut oil is 82% saturated fat, while canola oil is only 7%.
- It’s not just the obvious things (bacon, burgers, butter) that are high in saturated fat; it’s also “hidden” in foods like palm oil, chicken skin, cheese and cream.

- Be aware of emotional eating, as “comfort” foods tend to be unhealthy foods.
- A starter list of “better” choices would include canola, corn, soybean, peanut, safflower, sunflower and olive oils; walnuts, almonds, cashews, hazelnuts, pistachios and pecans; plus salmon and avocados. Clients can type up a cheat sheet for the grocery store.

(A word of caution: Remind them that people on prescribed statins should stay on them unless directed otherwise by their doctor.)

Maybe you have a texting system in place with your clients. If so, encourage them to send pictures of their “good for bad” swaps. Perhaps you do reward points for prizes, and they can keep a log to turn in. Or have them enlist their family/friends to help them switch to unsaturated choices. Who knows? Maybe their family and friends will become your clients too.

Less Gluten Can Mean Greater Heart Risks

In what may be the opposite of what you'd expect, a recent study published in *The British Medical Journal* suggests that people who *don't* have celiac disease can *increase* their risk of coronary heart disease (CHD) if they *reduce* gluten intake [2017; 357, j1892].

Using data collected from the Nurses' Health Study that began in 1986, a follow-up review analyzed long-term consumption of gluten of over 110,000 people with the development of incident CHD (cardiac disease involving an "event" such as a heart attack). During that time, about 6,500 women and men developed CHD. Participants in the lowest fifth of gluten intake had a CHD incidence rate of 352 per 100,000 person years, while those in the highest fifth of gluten intake had a rate of 277 events per 100,000 person years. Simply put, people who do *not* have celiac disease, yet reduce their gluten intake in the belief that it's healthful, may be doing themselves a disservice, as the gluten avoiders had a higher rate of CHD. Perhaps this can be attributed to a lower consumption of heart-healthy whole grains. For now, the authors support caution in choosing a gluten-free diet if you're not among the 0.7% of the population with diagnosed celiac disease.



GOING GLUTEN-FREE MAY PREVENT YOU FROM GETTING THE BENEFITS OF WHOLE GRAINS.

Moms-to-Be: Can the Diet Soda

If you work with pregnant women, encourage them to drink water instead of diet beverages. According to a study published in the *International Journal of Epidemiology*, Zhu et al. found that women with gestational diabetes who drink at least one artificially sweetened beverage a day during pregnancy are more likely to have children who become overweight or obese by age 7, compared to those whose mothers drank water [2017; doi: 10.1093/ije/dyx095].

Pregnant women tend to increase their beverage consumption as the volume of amniotic fluid increases; yet, to avoid extra calories, they may switch out sugary drinks for ones that contain artificial sweeteners. Their attempt to avoid weight gain unfortunately backfires for the babies, who are 60% more likely to have a high birth weight and nearly twice as likely to be overweight or obese by age 7. Luckily, if they substitute water for the sweetened drinks instead, they can reduce their child's risk at age 7 by 17%.

WATER IS CLEARLY A HEALTHIER CALORIE-FREE BEVERAGE FOR PREGNANT WOMEN AND THEIR KIDS.

A Neat Trick for Treats

A significant number of leading candy companies have committed to offering smaller pack sizes and making labels more transparent, reports foodnavigator-usa.com [Crawford 5/18/17]. The National Confectioners Association has stated their intent to make 50% of the individually wrapped products they offer available in packages totaling 200 calories or less by 2022. As well, they will print calorie information on the *front* of 90% of their best-selling products by that date. Consumers should also expect to see a PR push soon that emphasizes that candy is a treat, not a snack or meal replacement.



BY HALLOWEEN OF 2022, MORE SWEET THINGS WILL COME IN SMALL PACKAGES.



Edible Origami

Encouraging kids (and their adults) to play with their food could be a good thing for the environment, if it's in the form of edible origami pasta. Starting with flat sheets of cellulose and gelatin, engineers at MIT created a variety of shapes flavored with plankton and squid ink, including horses and flowers. When dropped into hot broth, the cutouts pop into 3-D shapes (see the video on designboom.com). In addition to being fun, origami pasta could help reduce waste. In a traditional macaroni box, 67% of the volume is air. "We thought maybe in the future our shape-changing food could be packed flat and save space," said Wen Wang in a Science Daily interview [May 25, 2017]. The perks would include lower shipping costs and a smaller carbon footprint.

It may be time to underscore the benefits of a vegetarian diet for those clients wishing to lose weight. According to findings by Kahleova et al. published in the *Journal of the American College of Nutrition*, dieters who choose a vegetarian diet lose weight more effectively than those on conventional low-calorie diets [2017; 36 (5), 364–69]. Not only that, the vegetarian dieters also improve their metabolism by reducing muscle fat.

Seventy-four subjects with type 2 diabetes were divided 50/50 into the vegetarian and control groups, with both following a very low-calorie anti-diabetic diet. Using magnetic resonance imaging, researchers studied adipose tissue in the study participants' thighs, looking for any differences in the three types of fat stored there: subcutaneous, subfascial and intramuscular (that is, beneath the skin, lining the muscles and within the muscles). While subcutaneous fat was reduced about equally by the two diets, subfascial fat was reduced only in response to the vegetarian diet, and intramuscular fat had a greater reduction with the vegetarian diet.

These findings are particularly important for people with high blood sugar. As increased subfascial fat in people with type 2 diabetes is associated with insulin resistance, reducing it could have a beneficial effect on glucose metabolism, better enabling glucose to move from the bloodstream into the cells where it's needed for fuel. Also, a decrease in intramuscular fat could help improve muscular mobility and strength.

If you work with people who wish to lose weight, or suffer from type 2 diabetes or metabolic syndrome, their new motto just might be, "Viva la Veggie."

A DIET TWICE AS GOOD FOR WEIGHT LOSS, FAT LOSS



A VEGETARIAN DIET OUTSHINES TRADITIONAL LOW-CAL DIETS AND VERY LOW-CAL DIABETIC DIETS.

Asian-Inspired Breakfasts Are *Hot, Hot, Hot*

OUT OF 119 TYPES OF FOODS, the National Restaurant Association listed Asian-inspired cuisine as #6 on its 2017 “What’s Hot” list. Perhaps census trends showing the Asian population as America’s fastest-growing ethnic segment has something to do with it. (It increased 76% between 2000 and 2015!) You can expand your morning menu with these four types of dishes from four Asian countries. Each can be customized with your favorite vegetables, protein sources and toppings (see photos).

- ① China’s congee (rice porridge; see recipe at right)
- ② Korea’s bibimbap (mixed rice)
- ③ Japan’s ramen (noodles in broth)
- ④ Vietnam’s bánh mì (sandwich)

CHINA

1



2



NORTH KOREA

INDIA

NEPAL

BHUTAN

MYANMAR

LAOS

THAILAND

ANDAMAN ISLANDS (INDIA)

SRI LANKA

NICOBAR ISLANDS (INDIA)

4

VIETNAM



My DNA Made Me Do It!

Brain genes may be the reason some clients cannot give up chocolate, according to Spanish research published in *The FASEB Journal* [2017; 31 (1, Suppl. 299.1)]. An analysis by Berciano et al. of genetic data from 818 men and women showed that certain genes played a significant role in a person’s food choices and dietary habits. Higher chocolate intake and a larger waist size were associated with certain forms of the oxytocin receptor gene, known as OXTR. Does this mean it’s time for clients to give up and give in to temptation? No, though it may require incremental steps to reduce chocolate intake, rather than relying on willpower.

**GENES THAT AFFECT
BEHAVIOR MAY
MAKE CHOCOLATE
MORE APPEALING
TO SOME OF US.**



Can Instagram Help You

In a small, yet delicious study from University of Washington, it would seem that posting a visual account of everything eaten in a day can help people stay accountable and choose healthy foods. Using the hashtags #fooddiary and #foodjournal, participants skipped traditional pen-and-notebook methods or modern apps in favor of sharing photos of everything they ate in a day. In a paper presented at the CHI 2017 Conference on Human Factors in Computing Systems, Chung et al. reported that the posters felt more supported by their hashtag peers and had a better perception of how much they ate because it was there to see. While the temptation to leave out photos of “undesirable” food was strong, the Instagrammers found that honesty won out in the end. For those who don’t want to overwhelm their current followers with photos of food, creating a second account based on targeted, relevant hashtags could be a socially acceptable way of finding like-minded communities.





PHOTO: COURTESY OF TRACY BECHTEL

Recipe: Ginger Congee

When she's not teaching yoga classes in Greenwich, Connecticut, Tracy Bechtel is using her skills as a holistic health coach to help people be their best in body, mind and soul. She completed her studies at the Institute of Integrative Nutrition in New York City and is a member of the American Association of Drugless Practitioners. One of her passions is creating recipes, including this Ginger Congee (pronounced "kahn-jee") breakfast that celebrates ginger's healing properties and its strong role in Ayurvedic medicine.

As it takes a few hours to prepare, Bechtel recommends cooking the congee in a slow cooker overnight.*

Ginger Congee

Makes 4-6 servings.

BROTH:

- 1 large piece of ginger root (about the length of your hand)
- 5 scallions, roughly chopped
- 7 dried shiitake mushrooms
- 2 cloves garlic, sliced
- 10 C water

CONGEE:

- 1 C short-grain brown rice
- 3 scallions, thinly sliced

TOPPING IDEAS:

- tamari, to taste
- toasted sesame oil, drizzled
- certified GMO-free baked tofu, cut into strips
- poached egg
- raw baby spinach
- Asian chili paste
- gomasio (salted sesame seeds)
- fried shallots

Wash ginger root well. There's no need to peel the ginger. Cut ginger root into round coins about ¼-inch thick. In a large pot, combine ginger, scallions, mushrooms, garlic and water. Bring to a boil. Reduce heat to low and simmer for 30 minutes. Strain solids from broth, reserving the mushrooms. Slice mushrooms thinly and set aside.

In the same pot, combine broth and brown rice. Bring to a boil. Reduce heat to low and simmer covered for 1½-2 hours. Remove from heat and allow to stand for 5-10 minutes to thicken.

Spoon congee into individual bowls. Top with scallions and reserved shiitake mushrooms. Add other desired toppings.

***SLOW COOKER INSTRUCTIONS:** After cooking the broth, put broth and brown rice in a slow cooker. Cook on low for 8-10 hours while you sleep! Stir well before serving. Add scallions and reserved mushrooms. Add additional toppings as desired.

For more recipes, head to www.tracybechtel.com. Recipe used with permission.

Eat Healthier?



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Can You Spot the Health Food Impostors?

MANY SEEMINGLY VIRTUOUS FOODS ARE NUTRITIONAL VILLAINS IN DISGUISE. HERE'S HOW TO ID THE *REAL* GOOD GUYS.

BY MATTHEW KADEY, MS, RD

It's easy to separate the nutritious from the less wholesome foods on the extreme edges of the spectrum: Broccoli is obviously healthier than onion rings. But things get blurry for foods in the middle. Products like yogurt, multigrain bread and crunchy granola seem wholesome enough on paper, but they can easily turn out to be the supermarket equivalent of wolves in sheep's clothing. Fall for their deceptive ways and you could undermine your diet and health. Even the most health savvy among us can fall for certain health halos. Seriously, no one is safe. These are some of the most glaring examples of foods many people consider to be "healthy." Here's how to spot the pretenders and make smarter selections.

Granola

Wait! What?! It's the epitome of healthy eating, right? We tend to associate granola with images of carefree outdoor living, not a calorie bomb that can contain as much sugar as cereal whose mascot is a cartoon character. For many granolas, the problem arises in the oils and generous amounts of sweeteners, such as evaporated cane juice, used in the baking process.

Think of those clumps of oats fused together by caramelized sugars. A mere $\frac{1}{2}$ cup serving can easily add 300 calories (without milk) and 15 grams of sugar to your cereal bowl. And who eats only a half-cup serving? Words like *maple*, *chocolate* and *honey* on the label should be a tipoff to granola's sugary ways. And too often, store-bought granola skimps on healthy nuts and seeds in favor of extra amounts of cheaper ingredients like oats and sugar-coated dried fruits.

WHAT TO BUY: To spoon up a granola with fewer waistline repercussions, turn over the box or bag and pay close attention to the serving size and nutrition numbers. There are better-for-you brands out there. You're looking for one that delivers no more than 10 g of sugar per $\frac{1}{2}$ cup serving and has at least 3 g of dietary fiber. If a brand lists an unrealistic $\frac{1}{4}$ or $\frac{1}{3}$ cup serving, make sure to do your math. A mere 8 g of sugar per serving seems fine until you realize that it's just for a $\frac{1}{4}$ cup serving.

Extra nuts and seeds in the mix are a good sign because they provide beneficial fats. Or go with muesli. It's also made with oats, nuts and often dried fruits, but it is rarely baked with oils and sugars so it's easier to find muesli with lower calorie and sugar counts.

Honey

Made by busy bees, honey receives a lot of buzz as a better alternative to highly refined sugars. But if someone is evangelizing about honey as a good-for-you sweetener, it's best to be skeptical. A 2015 *The Journal of Nutrition* article found that study participants who ate about 2 tablespoons of honey, sucrose (white sugar) or much-maligned high-fructose corn syrup every day for 2 weeks experienced the same impact on blood sugar, insulin, cholesterol, blood pressure, body

weight and inflammatory markers. And this may sting a little: All of these “sweets” were associated with a troubling rise in blood triglyceride levels, which could raise heart disease risk. Despite its aura of naturalness, what’s in the squeeze-bear bottle is chemically very similar to white sugar and HFCS, so as with all nutritionally poor sweeteners, honey needs to be consumed with great restraint. Ditto for other so-called “natural” sweeteners like maple syrup and coconut sugar.

WHAT TO BUY: Yes, unpasteurized honey from local sources is a better eco-choice than highly refined sugars or mass-produced liquid gold from who-knows-where, but use it very judiciously—preferably less than 1 tablespoon a day. And that includes honey pumped into products like granola and energy bars.

Dark Chocolate

With mounting research about dark chocolate’s health-boosting powers, it seems almost criminal not to take a daily nibble of it. For instance, a 2016 study in *The American Journal of Clinical Nutrition* showed that higher intakes of epicatechin, an antioxidant in chocolate, can slash the risk of dying from heart disease.

But not all dark chocolate packs such a notable health punch. The problem is there is no regulation of the term *dark chocolate*, so bars with varying percentages of cocoa can call themselves “dark.” And food manufacturers seem more than happy to exploit this regulatory oversight.

If you read the ingredient list of various products like chocolate-covered nuts claiming to be made with dark chocolate, you’ll often notice something is amiss. After “chocolate” appears on the ingredient list, look for brackets stating what the so-called “dark chocolate” is made of. More often than not, sugar is the leading ingredient—meaning the not-so-dark chocolate is more sugar than antioxidant-packed cocoa. (Ingredient lists go in order from most to least by weight.)

WHAT TO BUY: Most studies on the health benefits of chocolate used a product made with more cocoa than sugar. So look for products whose ingredient list shows “cocoa” listed before “sugar.” And when shopping for dark chocolate bars, seek out brands that state a cocoa (or cacao) amount of at least 70%.

Multigrain Bread

Bread labels fool many people into buying refined grains in disguise. Loafs touting slogans like “made with whole grains,” “7-grain,” “multigrain,” or “rye” are often made mostly with nutritionally inferior refined flour. Manufacturers may include some whole grains like whole-wheat or whole-rye flour in the mix, but the amount added is anyone’s guess.

And don’t give products sporting the yellow Whole Grain Stamp a free pass, as a Harvard study (Mozaffarian 2013) found they can be higher in sugar and calories than those without the label.

WHAT TO BUY: To bag the best loaf for your lunch sandwiches, scrutinize ingredient lists. Select one that comes closest to the basics: flour, water, salt and yeast. The first item listed should be a whole grain rather than “wheat flour” or “enriched flour,” which are just euphemisms for heavily refined white flour. Bread containing the FDA-regulated label “100% whole grain” cannot include any refined flour.

True whole-grain bread is a good bet: A large review of studies with more than 700,000 people published in the journal *The BMJ* (2016) found higher whole-grain intake at the expense of refined grains like white rice can lower the risk of death from heart disease, cancer and other chronic maladies. Ideally, look for a 10-to-1 ratio of carbohydrates to fiber in each slice. So if a slice of bread has 20 g of carbs it should also bring with it at least 2 g of fiber. If any sugar is present, it should be buried way down in the ingredient list—no more than 2 g of sugar per slice.

Veggie Chips

When it comes to health foods, veggie chips prove the trendiness-as-truthfulness model doesn’t always apply. Clever marketing leaves many consumers believing vegetable-infused chips are a smart move for snacking your way to an extra daily serving of vegetables. But this is a case of “too good to be true.”

Most veggie chips lead with a starchy

Pretenders to the “Healthy” Crown

Stay on guard for not-so-healthy products masquerading as saintly food.

“Halo” Foods

What They May Be Hiding

Marinara sauce	Excessive added sugar and sodium
Spinach pasta	Lots of refined carbs, only trace amounts of spinach
Vanilla Greek yogurt	Three to four times more sugar than unflavored yogurt
Ground chicken	Saturated fat from dark meat and skin
Fat-free salad dressing	Abundant sugar and sodium
Himalayan pink salt	Sodium level not much lower than table salt
Kombucha	High-calorie sweeteners that tone down tartness
Bran muffins	Store and coffee shop versions packed with excess calories



ingredient—like potatoes, white rice or taro—that ends up being a vehicle for oil, making the chips a high-carb, high-fat snack but with little protein. Often, the calorie count is not much less than you'd find in a bag of regular potato chips. Some chips are made with a powdered veggie blend that can include everything from kale to broccoli, but in the end, this is often largely an afterthought—and one of the last ingredients listed. Yes, many veggie chips are baked instead of fried, but people may just wind up eating more as they feel less guilty about polishing off a bag. Plus, the amount of salt isn't always lower in veggie chips.

WHAT TO BUY: Don't be sucker-punched by the word "veggie" in the title. A few handfuls of highly processed veggie chips aren't a substitute for more nutrient-dense fresh vegetables. In other words, load your grocery cart with *real* beets and sweet potatoes instead of crispy versions.

Or try making your own veggie chips from items like kale or zucchini—which are bound to be much more nutritious. But if you need a chip fix pronto, look for a brand made with beans, which do provide more protein and fiber than their competitors. Just make sure the first ingredient is beans.

Nut Butters

The sheer number of nut butters on store shelves these days makes it clear that consumers are going nuts for these spreads. And now they are coming in all manner of flavors from mocha to chai. But along with the cinnamon and chocolate flavors often comes sweet stuff like maple syrup, cane sugar or honey, so it's all too easy for added sugar to sneak its way onto that daily piece of toast.

Most Americans already consume too much added sugar, and fanciful nut

butters aren't helping the situation. Oh, and the dirty little secret of low-fat peanut butter is that it's not nearly the calorie saver you believe. While the light version of peanut butter has about 30% less fat than the regular stuff, it often contains more sugar and sodium to make up for the flavor lost when fat is stripped away. In fact, the added sugar means the calorie count between the two is negligible.

WHAT TO BUY: Full of healthy fats, peanut butter, almond butter and their ilk can be a clean eater's best friend—if you're buying the real deal. The ingredient list should include nuts, a touch of salt, and that's about it. If you prefer flavored versions, opt for those with no more than 3 g of sugar per serving. And shelve any reduced-fat offerings.

Almond Milk

Alternatives to dairy milk have been surging in popularity, especially almond milk. Yet moose-free milks like almond

benefit greatly from an undeserved health halo. By themselves, almonds are a nutrient powerhouse rich in healthful fats and important nutrients like vitamin E and magnesium. But a typical glass of almond milk is mostly just water and practically devoid of protein and other nutrients. Why do you think a cup of whole almonds has 824 calories, while a cup of watered-down original almond milk has a mere 60 calories?

Almost all the nutrients such as calcium and vitamin D are added to cartons by manufacturers. There remains a question of how well the body absorbs vitamins like D and minerals like calcium that are added to dairy-free milks compared to what is naturally present in foods, such as authentic milk. Sugar can be another sour note, too.

Non-dairy milks like almond and

cashew can be weighed down by added sugars including rice syrup and cane sugar. This is in contrast to the naturally occurring sugar (lactose) present in true milk. What's more, many nondairy impersonators contain emulsifiers (such as carrageenan, a polysaccharide extracted from seaweed), which are added during the manufacturing process to improve texture and keep ingredients from separating. But preliminary research suggests that these add-ins have the potential to mess with the healthy bacteria in our guts (Reardon 2015).

WHAT TO BUY: If you're following a dairy-free diet and gravitate toward nut-, seed- or legume-based drinks, make sure to choose those that are labeled "unsweetened" and don't contain added sugars. Even those labeled "original" typically contain troubling amounts of the added sweet stuff. And think about going old-school and opting for soy milk. Of all the nondairy alternatives, soy reigns supreme in protein. Each cup delivers protein levels nearly on par with regular milk: 6–8 g per cup.



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Yoga for Every Body

BY DANA BENDER

WITH SOME SMART STRATEGIES AND POSE MODIFICATIONS, YOU CAN SAY "WELCOME OHM" TO MORE CLIENTS.

THIS ANCIENT PRACTICE OFFERS MYRIAD BENEFITS FOR ANY CLIENT, BUT SOME BELIEVE THEY DON'T HAVE THE PHYSIQUE FOR IT. HERE, STEPS TO HELP DISPEL THE STIGMA FOR PEOPLE WITH OVERWEIGHT OR OBESITY ... AND TURN THOUGHTS OF "I CAN'T" INTO "I CAN."

Among individuals who are less familiar with yoga, there is a false idea that this discipline is only for the fit and agile, and that you have to have a specific body type to practice it. This mindset is not rare, and for many clients there is a stigma about practicing yoga. For some, the idea of putting one's body into flexible poses might seem impossible, which may prevent them from trying out a yoga session. Further, images of people practicing yoga can appear intimidating, such as those on the covers of popular yoga magazines and in personal social media posts showcasing acrobatic yoga poses. The truth is that yoga is for all bodies, regardless of physical makeup or ability.

As fitness professionals, it is important to be aware of how a limiting mindset can affect our clientele, including those affected by obesity. Fitness professionals need to teach and promote that yoga can be done by all. In fact, individuals who have excess weight need to know that they can progress and succeed in yoga, as can people with various health conditions and restrictions.

There are three specific responsibilities fitness professionals can uphold to help clients with obesity overcome their reservations about yoga: Provide education, empower a positive mindset and encourage them to progress safely beyond their comfort zone. Here are strategies for putting these objectives into practice, along with tips for making yoga more accessible for clients affected by overweight.

Communicate Yoga's Benefits for Every Body

The fitness professional's first responsibility is to educate our clients who want to participate in yoga but seem nervous about it. There is a need to convey both the short-term and long-term benefits of yoga, including (but not limited to) weight loss, improved flexibility, reduced stress, enhanced kinesthetic awareness, and full-body strengthening.

There is a need to explain that having excess weight or physical constrictions may make doing yoga challenging, but not impossible, especially with modifications. Any individual can learn, progress and maintain a sustainable yoga practice. If individuals try yoga with the mindset that "everyone can benefit from and do yoga," they might surprise themselves over time and enjoy long-term success.

Help Clients Shift Their Mindset

The second responsibility is to help our clients reframe their thoughts, expectations and assumptions about trying yoga. In other words, help them shift to the mindset that yoga is for everyone, and that they can participate. This requires fitness professionals to promote a positive, open-minded attitude toward the idea of trying something new so that clients feel less intimidated when entering the fitness room. More specifically, if a client says, “I can never do yoga,” fitness professionals can offer examples of people who defy the yoga stereotype.

You can also utilize your clients’ successes in other areas of their life, and in other areas of their fitness program, to remind them that, once they put their mind to something, they have been able to persevere. This may motivate them in the context of yoga. It will be important to help clients initially reframe their thoughts from “I can’t” to “I’ll try,” until they are able to shift to “I can” and “I am.” Teaching this shift in word choice can be helpful in shifting clients’ long-term beliefs. Sample questions to help you talk to clients are: “In what other areas of your life did you try something new and get more proficient over time?” and “Why don’t you shift your word choice from ‘I can’t’ to ‘I’ll try’ and see what happens?” This process of reframing takes time, but providing this support and motivation can play a significant role in shaping our clients’ view of themselves and their abilities.

Empower Them to Progress

The third responsibility is to empower our clientele to push themselves outside of their comfort zone in a way that is safe, supportive and anatomically sound. More specifically, it is important to teach our clients to be mindful to pain cues, and never to push through pain during yoga. It is also vital to recommend the right yoga-class fit. For example, power yoga classes or fast-paced vinyasa flow yoga classes might be too challenging for beginners. That being said, it will be important for fitness professionals to recommend hatha yoga, beginner, or gentle restorative classes instead so that clients can become more comfortable with the physical expectations.

Last, it is vital to educate our clients that sometimes physical modifications might be necessary, no matter what class they choose. But modified yoga poses are still yoga poses. In truth, modifications are offered in most group exercise classes, and many people choose to do them for a wide variety of reasons. An instructor who is supportive and encouraging in this respect will provide an environment in which clients feel comfortable performing modified yoga poses whenever they feel the need.

Adapt Yoga for Every Body

Listed below are takeaways on how yoga can be made more accessible. If a client has any medical conditions, they should talk with their medical provider before beginning yoga.

USE YOGA PROPS. Blocks, bolsters, blankets and straps can help make yoga poses more accessible. For example, in triangle pose, clients can place blocks underneath their hands to extend the length of the arms.

BEGIN WITH VERTICAL STANDING POSTURES.

These will be more comfortable for clients with excess weight since they require less transitioning on and off the floor. Also, they can be done with the support of yoga blocks (as shown below) and the wall (by placing the hands or foot against a wall when doing warrior III, for example).

MODIFIED
TRIANGLE POSE
(WITH BLOCK)



Finding the Right Words

How we speak to people who are affected by overweight or obesity matters more than we may realize. Using the wrong phrasing can be hurtful and perpetuate both discrimination and bias associated with weight. “Trainers and fitness professionals, those who are often working with people who are trying to lose weight, should understand that shame and blame are not effective tools for promoting weight loss,” says Rebecca Pearl, PhD, an assistant professor of psychology in psychiatry in the Perelman School of Medicine at the University of Pennsylvania. “In a recent study, we found that individuals seeking weight loss who had high levels of internalized weight-related blame and shame had worse cardiometabolic health than individuals who had not internalized these negative messages.”

According to the Obesity Action Coalition, the Obesity Society, and the Rudd Center for Food Policy & Obesity, people-first language is the key to speaking mindfully and sensitively. This has long been recommended for people who have health conditions such as diabetes (saying “a person who has diabetes” rather than “a diabetic person”). In other words, “a person with obesity” or “a person affected by obesity” are both acceptable, but “an obese/heavy/overweight person” is not. Also avoid using words with a negative connotation, such as “afflicted by” or “suffering from,” and never use the three-letter F-word (fat).

“Obesity is a complex health issue, and it is not a reflection of an individual’s internal qualities,” Pearl added. “It is important for everyone, including fitness professionals, to treat people with obesity with respect, discuss weight with sensitivity and without judgment, and give support and encouragement to those who struggle with weight management.”

The American Psychological Association notes that not everyone prefers people-first language. In fact, the National Federation for the Blind promotes “identity-first language” (“a blind person” instead of “a person who is blind”).

Bottom line: If you’re unsure of what to say or how to say it, the APA recommends asking an individual what *they* prefer. For example, “I’m going to use the word ‘obesity,’ since this is recognized as a medical disorder. Is that all right with you? Is there another word you’d prefer?”

Over time, clients can progress to other poses. Seated postures might be most difficult for yoga beginners and/or those who have excess weight.

PAY ATTENTION TO BREATHING AND OTHER PHYSICAL CUES. Make sure to always practice the yoga poses without the breath getting

constricted and fast paced. Maintaining this breathing approach is a safe way to stay at a comfortable pace in class. A pose might be too challenging if a client is experiencing constricted breathing, pain, chest discomfort, dizziness, etc. When this happens, it is important for clients

Strike a (Modified) Pose

When leading yoga, suggest and demonstrate modifications like these as you go, so clients will have options that are achievable for them. Remember to encourage people to use modifications when they need to and to be supportive of others who are making modifications.

CHILD'S POSE

Pressing the hips all the way onto the heels might be too challenging for clients who have excess weight. If child's pose causes discomfort in the knees and hips, clients can place the pelvis vertically over the knees instead, while using the same upper-body position. This is called puppy pose. Placing a yoga blanket under one's knees can provide relief if there is knee sensitivity.

DOWNWARD-FACING DOG

One modification for this pose is to bend the knees toward the floor without changing the lift of the hips. This will allow the pose to be more accessible for anyone who has excess weight or tight muscles. Puppy pose (described above) is also a great modification for downward-facing dog since it provides the same elongation of the side body.

CAT/COW POSE

Typically this pose is done in tabletop position; people can place a blanket under the knees for any knee sensitivity. Cat/cow variations can also be done standing with knees softly bent into a slight squat, if one cannot weight-bear on the knees, and then placing one's hands on the thighs, pressing the hips back and chest forward for cow pose, and then contracting the abdominals and rounding the spine in for cat pose.

STANDING FORWARD FOLD

Clients can position their hands on yoga blocks placed in front of them at the top edge of the yoga mat for support. There are three levels of block heights: low, medium and high, depending on how you place them. Clients can place two blocks on the highest level in front of their mat underneath their shoulders to make this pose more accessible. Extra blocks can be stacked if additional height is needed.



to stop what they are doing. Provide a modification to a less intense variation that does not result in these symptoms.

OFFER OPTIONS FOR TRANSITIONS. There is no right or wrong way to transition between two poses, as long as it is safe and supportive. Transitioning in a class might be difficult at first, so let clients know that it is okay to lower out of a pose in order to transition into a new pose. For example, individuals could lower their knees to the floor from downward-facing dog before stepping one foot forward into a lunge.

SUGGEST A WIDER STANCE. Setting up a standing yoga pose with a wider base of support in the feet will make many poses more accessible. For example, in a forward-lunge pose, students can move their feet wider apart so that they have more stability to balance, as well as more freedom to square their hips forward.

MAKE USE OF THE WALLS. When practicing standing poses, being near a wall can make balancing more accessible. For example, while practicing tree pose, students can hold on to the wall in order to find vertical balance. Also, being near a wall can allow clients to test their balance in a safe way, since the wall can be easily reached if needed.



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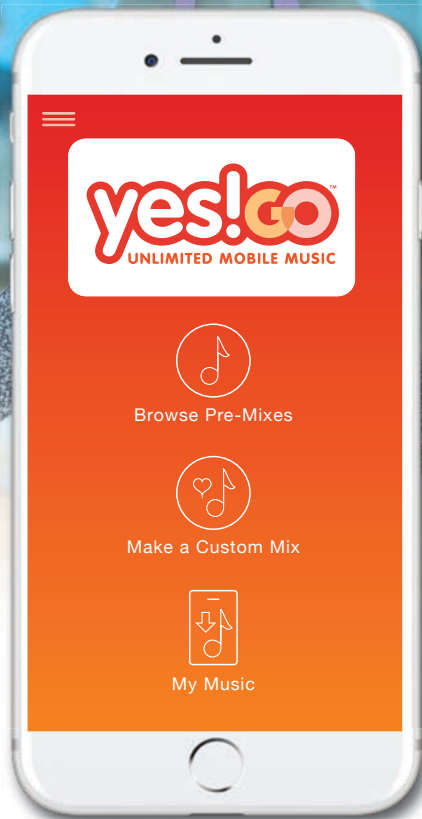
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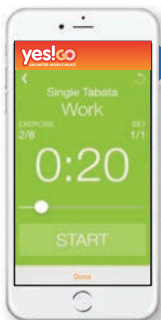


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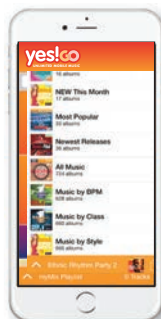
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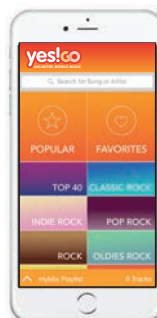
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Q+A

YOU ASK, WE ANSWER



NEW FINDINGS ON THE LIBIDO-EXERCISE CONNECTION, MUSCLE DYSMORPHIA AND “CHEAT DAYS.”

DOES INTENSE OR PROLONGED EXERCISE DECREASE LIBIDO IN MEN?

A study published in July 2017 surveyed 1,077 men (aged 18 or older) who responded to an online questionnaire asking about their libido (sexual desire) and training habits. Researchers divided the respondents into two groups—low libido and normal/high libido—according to their “libido scores” (calculated from their replies to questions on that topic).

The survey suggested men who exercised with higher intensity or duration had a greater risk of lower libido than those who exercised with low or mid-range intensity or duration. Interestingly, the vast majority of the men who performed some type of strength training had a normal or high libido.

Note the familiar scientific maxim that “correlation doesn’t imply causation.” Just because a study found a connection between prolonged or intense exercise and a lower libido, it doesn’t mean that one caused the other. Lower libido could have been caused by decreased levels of testosterone or greater mental or physical fatigue, for example.

We all like to think exercise helps keep libido strong, and it may—as long as the exercise intensity or duration isn’t excessive.

REFERENCE: Hackney, A.C., et al. 2017. Endurance exercise training and male sexual libido. *Medicine & Science in Sports & Exercise*, 49 (7), 1383–88.

WHAT IS MUSCLE DYSMORPHIA?

People with *muscle dysmorphia*—a term first used in 1997—are dissatisfied with their bodies, have low self-esteem and are preoccupied with their muscularity. Originally, the condition was called *reverse anorexia*. In people with anorexia, no matter how much fat they lose, they still see themselves as too big; with muscle dysmorphia, no matter how much muscle they gain, they still see themselves as too small.

In one review and meta-analysis published in February 2017, researchers pooled data from 31 studies with 5,880 subjects (average age 28). They found a positive association between muscle dysmorphia and psychological disorders such as anxiety, social physique anxiety, depression, neuroticism, perfectionism and low self-esteem. As might be suspected, muscle dysmorphia is more common among bodybuilders than those who simply do weight training.

Many people who weight train want to increase their muscular size, but with muscle dysmorphia, the urge can become unhealthy.

REFERENCE: Mitchell, L., et al. 2017. Muscle dysmorphia symptomatology and associated psychological features in bodybuilders and non-bodybuilder resistance trainers: A systematic review and meta-analysis. *Sports Medicine*, 47 (2), 233–59.

IS THERE ANY SCIENTIFIC BASIS FOR ADVOCATING “CHEAT MEALS”?

As the name implies, a cheat meal lets people cheat on their eating plan. Cheat meals are consumed 1 day a week—on a “cheat day”—and are characterized by an undisciplined and unrestricted food intake that “rewards” disciplined and restricted intake of food on the other 6 days. These meals almost always include calorie-dense foods that are the antithesis of what we typically consider healthy. (Burgers, fries, pizza and ice cream are cheat day favorites.)

Eating these foods isn’t necessarily bad if done in moderation. But with cheat meals, the foods are consumed once a week in massive quantities. Though using cheat meals to boost metabolism is a popular notion reflected in an enormous quantity of online content and advice, there’s no scientific support for this practice.

If anything, cheat meals have raised concern in the clinical community because they meet certain criteria for eating disorders. For example, as defined by the American Psychiatric Association, cheat meals are similar to binge-eating disorder and bulimia nervosa.

REFERENCE: Pilo, E., et al. 2017. A thematic content analysis of #cheatmeal images on social media: Characterizing an emerging dietary trend. *International Journal of Eating Disorders*, 50 (6), 698–706.



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