

Rehabilitation Strength & Conditioning of the Elite Hockey Player

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Goals

- How Can I help you.
- How Can You help me.
- Your Favorite Exercises

Psychology Beats all other Science



Mentors

- Shirley Sahramann (diagnosis & treatment of Movement Impairment syndromes)
- Gary Gray (close Chain Concept)
- Nikali Bogduk (Fascia Connection)
- Vladimir Janda (muscle initiation, imbalances)
- Paul Hodges (multifidus, transverse, etc)
- Maggie Knott (keg to development of PNF)
- James Cyriax
- Coaches & Players



Presentation

- Yearly Cycle
- Medical Issues
- Personal Strength and Conditioning Philosophy
- Unique issues
- New Muscle groups to focus on
- Direction of Training

Yearly Cycle

- Combines
- Consult with Free Agents
- Conditioning Camp / Summer Training
- Rookie Camp / Pre-Season Training
- Pre-Season Medicals - Fitness - Testing
- Pre-Season
- Season 82 game schedule – in season training
- Play-offs
- Exit Medicals – Fitness Evaluation ??

Combines

- Important aspect to look at
- Example Staal / Skinner
- Physical testing / History of player
- Anthropometric tips
- 97% talent
- Most Important aspects of fitness at that age



Conditioning Camp

- 4-5 days long (very long)
- Player development time
- Fitness
- Medicals
- Nutritionist
- Physiology
- Psychology
- Wellness
- Skating drills
- Medical Issues
- Vision training
- Athlete feels comfortable with manual
- Comfortable in wght rm, track, pool, rink, etc
- Potential draw backs with pro sports

Importance of Nutrition

Strength & Conditioning Manual

- Computer base, also hard copy
- Individualize training input from everyone
- Personal Trainers
- Fitness testing (why select the tests)
- Different ways to train (Ray Bourque)
- Selection of exercises, risk vs. reward

Rookie Camp

- Head Trainer & Assistant from Minors over see event
- Very competitive
- Usually allot of injuries
- Most people post camp fo to minors
- Need to set up medicals
- No fitness testing
- Rely on other teams medical personal
- Great to gear up for main camp i.e. supplies / medicals

Pre-Season Training Sessions

- Get them to the Dance
- One way vs. 2 and 3 way contracts
- Groin Study
- Toughest workouts of the year both on and off ice.
- Fun
- Team Building

Pre Season Medicals Fitness Testing

- What might be a problem
- Heart / Teeth / Joints / EIA / Thyroid / Vit D
- Medical Conditions identified
- Fitness issues that may lead to poor performance or injuries identified (usually to late if spotted now)

Pre-Season Games

- Get through 6 weeks without a major injury
- Time to allow 2 way contract guys to show their stuff
- Make sure you don't develop any injuries that will linger into season
- New Equipment / Buildings
- Larger Roster
- Guys you will never see again

82 Game Schedule

- 75,000 miles traveled / tips to stay healthy on planes / hotels / rinks / hydration
- 13 time zones
- Sleep deprivation cycle
- Sickness
- Ice time
- NHL (no home life)
- Food / eating
- Hotels / Beds / Humidity
- Flu shots (steam rooms, workout areas)



Playoffs

- 16 of the toughest wins in Pro Sports
- Travel – Play
- What People will Play with
- Shorten off season
- Physical & Mental toll on the athletes, coaches, etc
- Popularity
- Greatest time of all in sports

Exit Medicals

- Huge time to start working on the next year
- Elective Surgeries / Follow up / Wisdom Teeth
- Fitness issues / Coaches etc. / how they play the game and injury record
- Review all medical and orthopedic issues
- Follow up ! Follow ! Communication ! Communication !

Sports Medicine Team

- Athlete
- Coach / Positional
- Management
- Agent
- Team Mates
- Internet
- Depth Chart
- Time of the Season
- Position Played
- Family-Friends esp. wife
- Other Members of medical team
- Contract
- Age
- Type of Injury
- What's new in the Media

Medical Issues

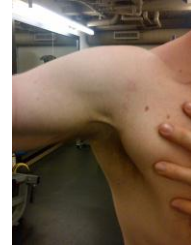
- Key issue here
- Everyone must know something about the medical issues facing the athlete
- For success you have to have open communications. When you win there is enough recognition to go around
- No place for competition to get athlete back
- Risk Reward
- Sets you apart

Medical Issues in the Weight Room

Supinated Arm position



Bench Press



The Worst



Go Figure



Disc Pathology



Chest Wall Injury



Concussion

- Mouth Guards
- Helmets
- Rules
- What is new
- Neck Strengthening / shoulders / T-Spine
- Vision (head on swivel “wrong”)
- Hearing
- The Intersection



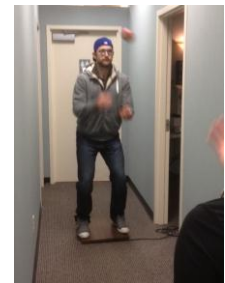
Behind the Net “Intersection”



New M.I. for Concussions



Clearing Concussions



Clearing Concussions



Personal Philosophy of S&C

- Components of Muscle Contraction
- Tension (tone) at rest
- Passive Mobility
- Active Mobility
- Quality of Initiation
- Maintain Proximal control – then Global
- Lock and load (precise axis of Movement)
- Dissociation of Movement
- Separation (extreme Athletic Movement)

Ultimate in S & C



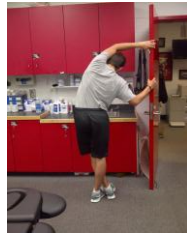
Unique Issues to Focus On

- VMO
- Glut Complex
- Hip Flexor
- Core control
- Eyes / Hearing
- Inferior Traps – QL's
- T-Spine – Posterior Shoulder
- Neck strengthening
- Grip strengthening
- V.J. vs. Diagonal jump
- Endurance training / base training



Lateral Pillar – Q.L.

- Stretches (especially Goal tenders)



Stretches



Core Control Exercises



Neck Strengthening Progression

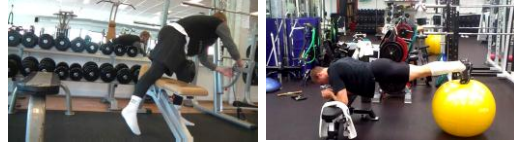
- Isometric holds 4 direction
- Isometric holds with arm movement
- Isometric holds with arm, eye
- Demo these exercises

Triple Extension Progression Posterior Chain

- Wall Vertical
- Table Top
- Wheel Barrel leg Drops
- Wall Push = proprioceptive



Posterior Chain Advance Exercise



Load from the Bottom Up

- Diameter of the C spine vs. L spine
- End plates
- Anatomically we are not programed to squat front or back
- Functionally



Single Leg Sequence

- Shallow Squat (hamstring knee control)
- Boulders (Glut complex)
- Medicine Ball Press (para vert control)
- 747's (Traps control)
- Over head Squat (total body alignment)



New Direction

- Be a great persona first / have empathy
- Excited and passionate about what you do
- Know your athletes and those close to them
- Never stop learning, but base your learning on solid principles, don't be quick to decide
- Get the most out of any and every situation your given.

Conclusion

- Friesen Physio-Fitness Summit – Sept 10-12, PNC “Shoulder and Neck”
- Friesen 5 K fun Run Sept. 15th at the PNC, proceeds go to the LLS of Eastern Carolina, will be the 7th year in a row for the run that has raised over 350 K

