

TRIALS, TRIBULATIONS & TRIUMPHS OF DIABETES

Oh the many trials and tribulations that people with diabetes face. On a daily basis, hour-to-hour, the diabetic must make decisions about his health. Checking the blood glucose, counting carbs, meal planning, paying attention to how he feels, doctor appointments, & financial concerns can consume the day. The tasks are indeed burdensome & there is also the worry about future effects on health. We all know DM literally affects the body from head to toe. Let's take a look inside the body of someone with Diabetes.

IN THIS ISSUE :

We will cover the complications of Diabetes if not properly controlled as well as the **POSITIVE** outcomes if control is achieved.

WEEKLY TRIVIA

"If you don't manage your diabetes, your diabetes will manage you."

— Sherri Brady

TRIALS AND TRIBULATIONS

HYPERGLYCEMIA

Any blood glucose (bg) >170mg/dl is considered to be too high and if sustained will result in many complications. A bg >250mg/dl can lead to DKA, & even higher levels can lead to hyperosmolar hyperglycemia nonketotic syndrome, coma, cerebral edema, acute renal failure, acute MI, or death.

BRAIN

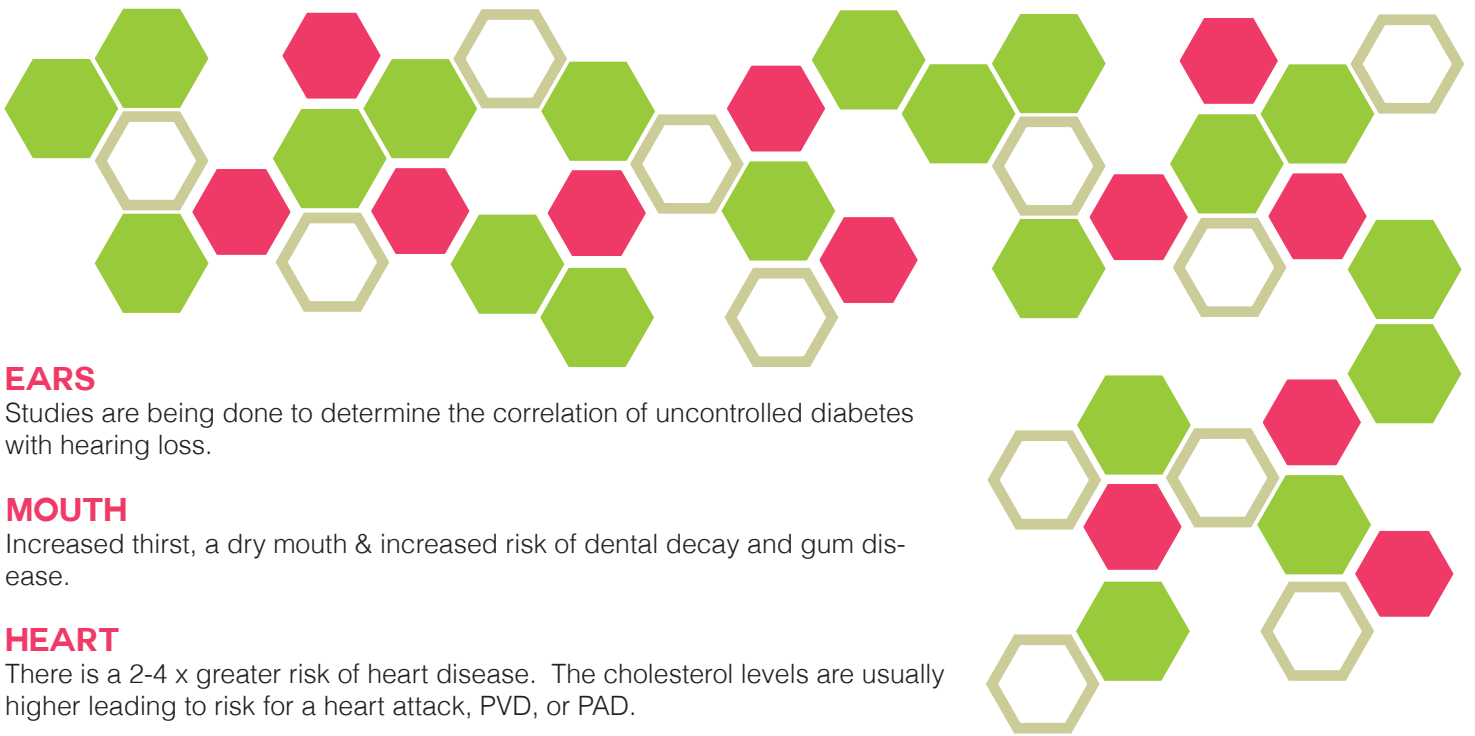
There is a 2-4 x greater risk of CVA. Sustained hyper- or hypoglycemia leads to the inability to think clearly and eventually leads to dementia/brain cell loss. There are studies linking uncontrolled DM to Alzheimers.

HEMODYNAMICS

There can be many changes in body chemistry so homeostasis becomes a challenge. Diabetes can interrupt the uptake & storage of carbohydrates, fats & amino acids; inhibits the breakdown of triglycerides; affects protein & mineral metabolism, the Na/K+ pump, DNA synthesis, cell reproduction, coagulability, acid-base balance, blood glucose & insulin levels.

EYES

DM is the leading cause of blindness. Unstable bg can cause blurred vision and elevated bg can lead to retinopathy. Uncontrolled diabetes speeds the formation of cataracts.



EARS

Studies are being done to determine the correlation of uncontrolled diabetes with hearing loss.

MOUTH

Increased thirst, a dry mouth & increased risk of dental decay and gum disease.

HEART

There is a 2-4 x greater risk of heart disease. The cholesterol levels are usually higher leading to risk for a heart attack, PVD, or PAD.

HANDS

These guys take a beating from bg testing. Neuropathy is common in the hands.

PANCREAS

In most cases, beta-cell dysfunction or failure is present so the pancreas is not able to produce enough insulin. The diabetic with elevated bg and elevated triglycerides is at risk for pancreatitis.

ESOPHAGUS

Reflux, indigestion.

STOMACH AND INTESTINES

Incretin (gut) hormones are typically missing causing a feeling of hunger and post-prandial bg spikes. With prolonged hyperglycemia, gastroparesis can occur. This brings on bloating, nausea, abdominal pain, & sporadic food absorption making bg control virtually impossible.

KIDNEYS

Hyperglycemia causes increased urination & nephropathy. The more the damage, the more difficult it becomes to manage the bg & diet. With an elevated creatinine and low eGFR, oral medicines need to be decreased or stopped and insulin started. Insulin is nicer on the kidneys but is atherogenic, & can also cause weight gain. Kidney infections are common.

BLADDER

Sustained hyperglycemia can lead to urinary incontinence and/or retention (neurogenic bladder). Frequent UTIs are common.

LEGS

Decreased circulation can lead to PVD, PAD, stasis ulcers, clots, cramping, and pain. Motor neuropathy (nerve damage to muscles) makes walking and balance difficult.

be a
PATIENT
ADVOCATE

&
Know your
PATIENT'S
DISEASE PROCESS

For more information visit
www.diabetes.org
and the
American Diabetes
Association



FEET

Unfortunately there is a 60% risk of having peripheral neuropathy even with good bg control. It is very painful and increases the risk of wounds, infections, and potential amputations.

REPRODUCTIVE ORGANS

Hyperglycemia can cause frequent and difficult to treat yeast infections, decreased sensation and sexual dysfunction in females, & erectile dysfunction & falling testosterone levels in men. Polycystic ovarian syndrome is common in insulin resistance. Pregnancy is complicated and requires intense monitoring and treatment. In gestational diabetes risks for the neonate are growth abnormalities, chemical imbalances, premature delivery, & stillbirth.

Complications for the woman with uncontrolled diabetes who becomes pregnant can be devastating; therefore, preconception planning and bg control are vital. Birth defects usually originate during the first trimester: multi-organ agenesis, CNS defects, heart anomalies, anal/rectal atresia, renal anomalies, situs inversus, & stillbirth are among the long list of possible complications. For the mother with T1DM, DKA is an ongoing threat.

SKIN

As the kidneys dehydrate the body the skin becomes fragile, dry, and cracks. Itching and the “diabetes rash” are also common.

HYPOGLYCEMIA

Any bg <70mg/dl is too low. It can lead to accidents, inability to focus, seizures, anoxia, brain cell loss, coma or death. If the patient survives prolonged severe hypoglycemia, he can potentially have irreversible brain damage. Intervention is emergent.

FINANCES

Diabetes can be very expensive. Providing patients with information on patient assistance programs is important. Contact one of our social workers for more information for your patients.

TRIUMPHS

With good control, an A1c of 7% or lower, the risks for complications is much lower. With diligence, commitment, education, & support diabetes is manageable and one can live a long, healthy, complication-free life. Many women have successful pregnancies and healthy children. There are many medications and treatments for diabetes and technology is forever changing and being developed.

Having diabetes is like having your own tiger & a cage. Take your eye off the tiger and he will inevitably emerge from the cage and devour you. Conquering diabetes is like putting the tiger in the cage and locking the gate. The tiger will forever be in your backyard but he can stay caged. YOU are in control.

**to learn
MORE
ABOUT
DIABETES**
**contact your
CERTIFIED DIABETES
EDUCATOR
SHERRI BRADY
RN, CDE
AT EXT. 583**



WHAT CAN I DO TO HELP MY PATIENTS?

Be aware of the many possible complications so you can perform adequate assessments. **Be sensitive to their fears and concerns & be supportive.** Be timely with medicines, bg monitoring, snacks & meals. Balancing bg in the acute care setting is very difficult because of many contributing factors, but we owe it to our patients to do the best we can.

For more information on the complications of Diabetes visit:

American Diabetes Association

www.diabetes.org

Juvenile Diabetes Research Foundation

www.jdrf.org

WEEKLY TRIVIA

Send your trivia answers to **sbrady@lrmc.org**, and the winner(s) with the most correct answers will be announced in next week's publication.

NEXT ISSUE: Pharmaceutical Treatments of Diabetes, June 16, 2014

- 1 Diabetes causes a ____ times greater risk of CVA and heart disease.
- 2 Hyperglycemia is a bg > ____.
- 3 T/F Diabetes does not affect a neonate.
- 4 T/F Nephropathy, neuropathy, & retinopathy are complications of diabetes.
- 5 Hypoglycemia is any bg < ____.

Please feel free to send any questions or topics that you would like covered to:
SBrady@LaneRMC.org or call **Sherri at ext. 583.**