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TYPE-1 DIABETES

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Type-1 diabetes also known as Juvenil Diabetes. A chronic condition in which Pancreas produces little or no insulin. It can also occur in children and adolescents depending on how many Beta cells of the pancreas are non-functioning. The onset of symptoms corresponds to an 80% reduction in the beta cell mass. It typically appears in adolescence.

Different factors, such as genetics and some viruses, may cause type 1 diabetes. Although type 1 diabetes usually appears during childhood or adolescence, it can develop in adults. Type 1 diabetes is a chronic (life-long) autoimmune disease that prevent your pancreas from making insulin. Insulin is an important Hormone that regulates the amount of glucose (sugar) in your blood.

If you don't have enough insulin, too much sugar builds up in your blood, causing **HYPERGLYCEMIA (HIGH BLOOD SUGAR)** , and your body can't use the food you eat for energy. This can lead to serious health problems or even death if it's not treated. People with Type 1 diabetes need synthetic insulin every day in order to live and be healthy.

SYMPTOMS

- Feeling more THIRSTY than usual.
- Slow HEALING of cuts and sores
- Vaginal yeast

- Feeling very HUNGRY
- URINATING a lot
- Losing weight
- Having Blurry Vision
- BED WETTING in Childrens
- Swing in MOOD
- Feeling Tired and WEAK

EFFECTS ON HUMAN BODY

If we talk about the effects of TYPE – 1 DIABETES , then we come to know that Over time, type 1 diabetes complications can affect major organs in the body. These organs include the heart, blood vessels, nerves, eyes and kidneys. Having a normal blood sugar level can lower the risk of many complications. Diabetes complications can lead to disabilities or even threatenyour life.

- Heart and blood vessel disease
- Diabetes increases the risk of some problems with theheart and blood vessels. These include coronary artery disease with chest pain (angina), heart attack, stroke,

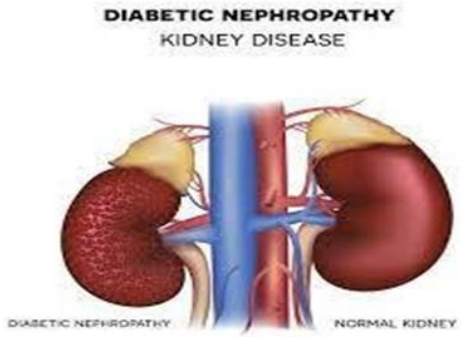
Nerve damage (neuropathy)- Type of nervedamage that can occur with diabetes.

The condition most often affects the legs and feet. For some people, symptoms are mild. For others, symptoms can be painful, debilitatingand even fatal.

Symptoms include pain and numbness in the legs. In more severe cases, symptoms include issues with digestion, the bladder and controlling heart rate.

Treatment consists of insulin and nerve pain medications.

- Kidney damage (nephropathy)
- The kidneys have millions of tiny blood vessels that keep waste from entering the blood. Diabetes can damage this system. Severe damage can lead to kidney failure or end-stage kidney disease that can't be reversed. End-stage kidney disease needs to be treated with mechanical filtering of the kidneys (dialysis) or a kidney transplant.



. **Diabetic Retinopathy** – Diabetes can damage the blood vessels in the retina (part of the eye that senses light) (diabetic retinopathy). This could causeblindness. Diabetes also increases the risk of other

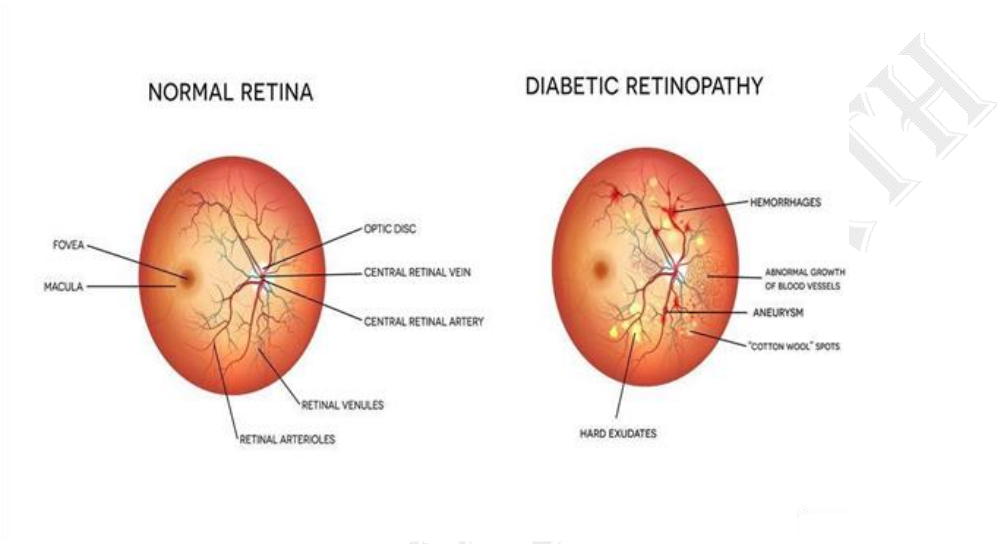
laucoma.

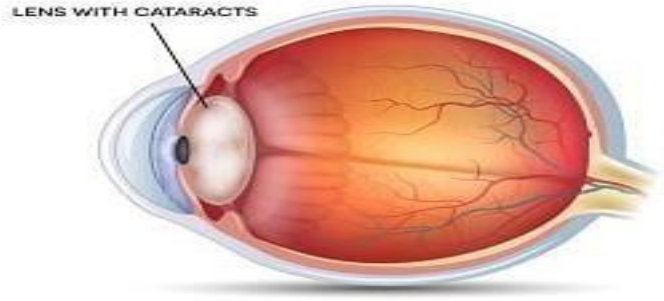
Cataracts – Blood sugar is the link between diabetes and cataracts. To understand this link, though, it's important to understand how high blood sugar affectsthe body.

If left unchecked, high blood sugar slowly damages blood vessels throughout the body. This includes the tiny bloodvessels in the eyes. And when diabetes affects these blood vessels, there's the risk of cataracts and other eye conditions.

Cataracts are the result of high sugar levels in the aqueous humor. The aqueous humor is the space between the eyeballs and the lens of the cornea. It supplies nutrientsand oxygen to the lens.
When blood sugar rises, the lens swells, resulting in blurryvision.

Uncontrolled blood sugar also causes enzymes in the lens to convert glucose to a substance called sorbitol. Too much sorbitol in the lens leads to cloudy vision, too.



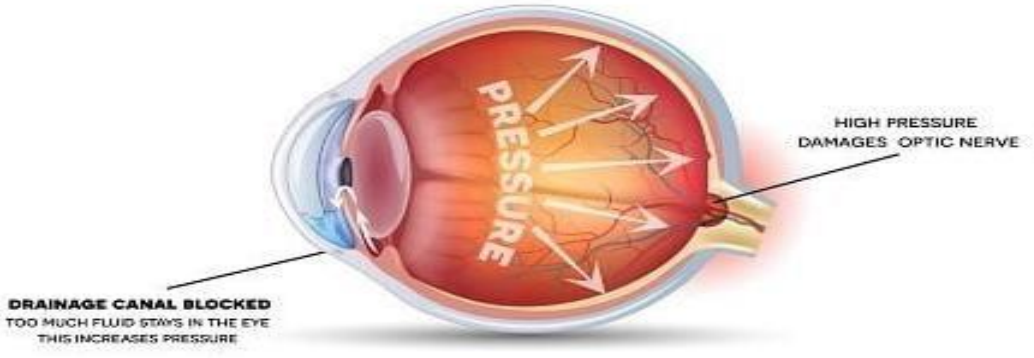


CATARACTS

Glaucoma-Glaucoma is a group of eye diseases that can cause vision loss and blindness by damaging a nerve in theback of your eye called the optic nerve.

The symptoms can start so slowly that you may not notice them. The only way to find out if you have glaucoma is toget a comprehensive dilated eye exam.

There's no cure for glaucoma, but early treatment can often stop the damage and protect your vision. There are many different types of glaucoma, but the most common type in the United States is called **open-angle glaucoma** — that's what most people mean when they talk about glaucoma. Other types are less common, like angle- closure glaucoma and congenital glaucoma. Glaucoma is a group of eye diseases that can damage the optic nerve—the bundle of nerves that connects the eye to the brain. Diabetes doubles the chances of having glaucoma, which can lead to vision loss and blindness if not treated early. Symptoms depend on which type of glaucoma you have.



GLAUCOMA

Gum Problems-Diabetes can affect your mouth by changing your saliva—the fluid that keeps your mouth wet. Saliva helps prevent tooth decay by washing away pieces of food, preventing bacteria from growing, and fighting the acids produced by bacteria. Saliva also has minerals that help protect tissues in your mouth and fight tooth decay.

Diabetes and some medicines used to treat diabetes can cause the salivary glands in your mouth to make less saliva. When less saliva flows, the risk for dental cavities, gum disease, and other mouth problems increases.

Diabetes can also increase the amount of glucose in your saliva. Diabetes occurs when your blood glucose level, also called blood sugar, is too high. High levels of glucose in your blood can also cause glucose to

build up in your saliva. This glucose can feed harmful bacteria that combine with food to form a soft, sticky film called plaque, which causes cavities. If you don't remove plaque, it can also build up on your teeth near your gum line and harden into a deposit called tartar, which can cause gum disease. Periodontal gum disease, is the most common and serious mouth problem related to diabetes.

Untreated, the disease advances in stages, from inflamed gums to tooth loss. High levels of blood glucose increase the risk thatgum disease will progress from mild to severe.

Gingivitis, or inflamed gums

The first stage of gum disease is gingivitis, a mild inflammation of the soft tissues around your teeth. Gingivitis develops when plaque and tartar build up on your teeth near your gum line, irritating and inflaming your gums. As a result, your gums maybecome red and swollen, and may bleed easily.

Periodontitis

Untreated, gingivitis can progress to periodontitis, an infectionof the gums and bone that hold your teeth in place. Your gums may pull away from your teeth, forming pockets that slowly become infected. The bacteria in your mouth and your body's response to the infection start to break down the bone and tissue that hold your teeth in place. If periodontitis is not treated, the teeth can become loose and may even need to be removed.

Diabetes Dermopathy-This condition is also known as shin spots, and it's harmless. The spotslook like red or brown round patches or lines in the skin and are common in people with diabetes. They appear on the front of your legs (your shins) and are often confused with age spots. The spots don't hurt, itch, or open up. Diabetes can cause changes in smallblood vessels that reduce blood supply to the skin.

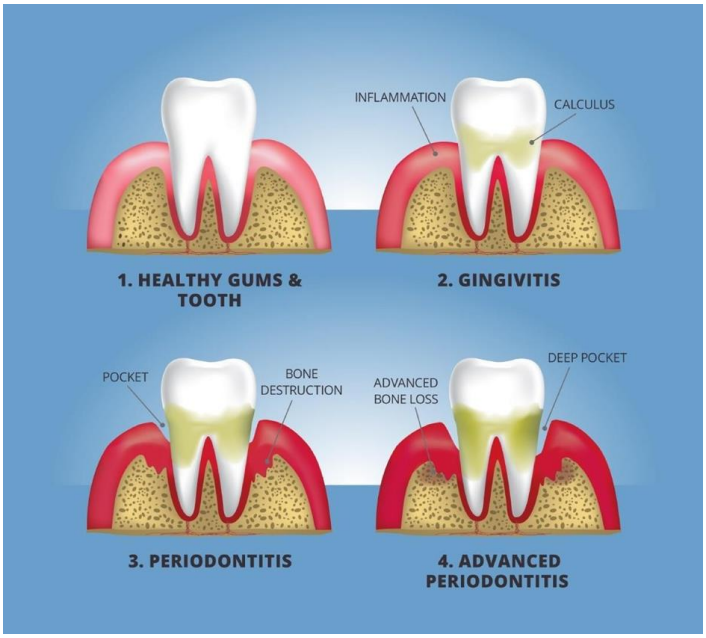
This skin condition is harmless and doesn't need treatment. If you do have any concerns about shin spots, talk to your doctor.

Pregnancy complications – High blood sugar levels can be dangerous for both the parent and the baby. The risk of miscarriage, stillbirth and birth defects increases when diabetes isn't well-controlled. Forthe parent, diabetes increases the risk of diabetic ketoacidosis, diabetic eye problems (retinopathy), pregnancy-induced high blood pressure and preeclampsia.

Gestational diabetes is diabetes diagnosed for the first time during pregnancy (gestation). Like other types of diabetes, gestational diabetes affects how your cells use sugar (glucose). Gestational diabetes causes high bloodsugar that can affect your pregnancy and your baby's health.

While any pregnancy complication is concerning, there's good news. During pregnancy you can help control gestational diabetes by eating healthy foods, exercising and, if necessary, taking medication. Controlling blood sugar can keep you and your baby healthy and prevent adifficult delivery.

If you have gestational diabetes during pregnancy, generally your blood sugar returns to its usual level soon after delivery. But if you've had gestational diabetes, you have a higher risk of getting type 1 diabetes. You'll needto be tested for changes in blood sugar more often.



I. CHEMICAL CAUSE

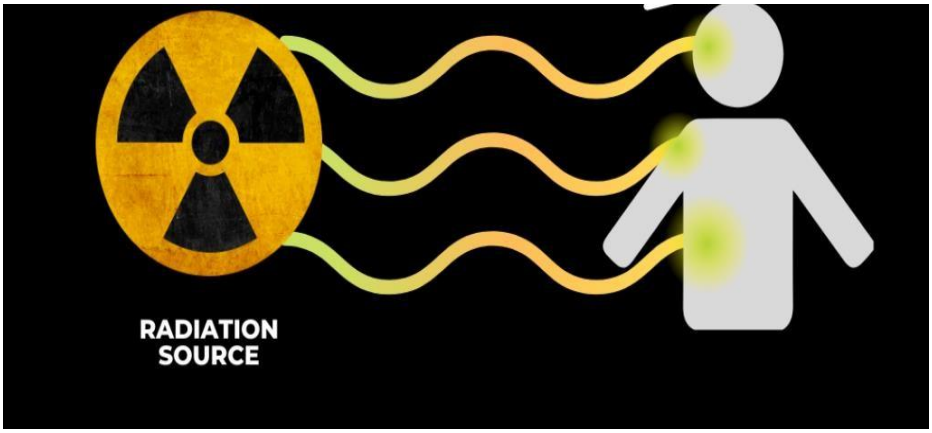
Radiation Exposure- Only a small number of peer-reviewed studies published in scientific journals have examined the relationship between radiation and diabetes or obesity. Some human studies suggests that high doses of radiation may contribute to type 1 or type 2 diabetes development. Whether lower doses are also implicated remains an unexplored area of research. An increased risk of type 1 diabetes was seen in theregion of Gomel, Belarus, following the Chernobyl nuclear plant accident in 1986. The average incidence of type 1 diabetes in the years following the accident was higher thanthe years preceding the accident (Martinucci et al. 2002).

Comparing the Gomel region (highly exposed) to the less highlyexposed Minsk region in Belarus, type 1 diabetes incidence increased significantly in Gomel, more than it did in Minsk (Zalutskaya et al. 2004). On the other hand, a similar analysis from Poland did not show an increased risk in those exposed to higher radiation levels (Bandurska-Stankiewicz and Rutkowska 2004).

Other autoimmune diseases have also been found in Belarus children following Chernobyl, including autoimmune thyroid disease (Lomat et al. 1997). Adults living near abandoned uranium mines on the Navajo Nation had higher levels of autoantibodies, with exposure through drinking water (Erdei etal. 2019).

A laboratory study found that expos"ng r'ts to long-term radiofrequency radiation (as emitted by cell phones) did not affect insulin secretion, but did make islets more separate fromone another. I am not sure if that is relevant to diabetes (Mortazavi et al. 2016).

Exposing rats to wi-fi radiation caused higher blood glucoselevels, oxidative stress, and impaired insulin secretion (Masoumi et al. 2018).



Drug Exposure – Lifetime prevalence of illicit drug use is high in the Czech Republic (CR) – it reached 31.2 % of the population in the age group 15-64 years in 2017.

Diabetes mellitus (DM) applies to 8.8 % of the Czech population. Risks of illicit drug use in diabetic patients are related both to their effect on glucose metabolism and to the lifestyle associated with illicit drug use, which might lead to worsened glycemic control and increased morbidity and mortality of the patients. Cannabis use, being the most common illicit drug use in the CR, presumably does not have a direct effect on glucose metabolism. However, it increases appetite and decreases self-control. Opioids/opiates disrupt insulin secretion, which consequently leads to hyperglycaemia. On the other hand, hypoglycaemia might be an adverse effect of opioid treatment in diabetic patients. Cocaine and other stimulants such as MDMA increase a blood glucose level andincrease the risk of diabetic ketoacidosis in Type 1 DM.

Patients with DM who use illicit drugs should therefore be sufficiently informed about health risks related to illicit druguse in combination with DM.

Vaccine Exposure- Type 1 Diabetes can also be triggered by vaccination. Many cases of childrens are

reported who got Diabetic after a few months of being vaccinated specially vaccination done at the age period of 10-12 or we can say Tdap/Tdhpv . These vaccines have very strong and harmfull which strongly reacts with BETA CELLS and as the beta cell nature is to digest the foreign material ,soin that try they became dead.

Exposure To Milk- Main reason for triggering Type 1 Diabetes are the Milk Products. According to **AYURVEDA** milkis just like Amrita(Ambrosia). According to **AYURVEDA** milk is the sumpreme medication of every disease.

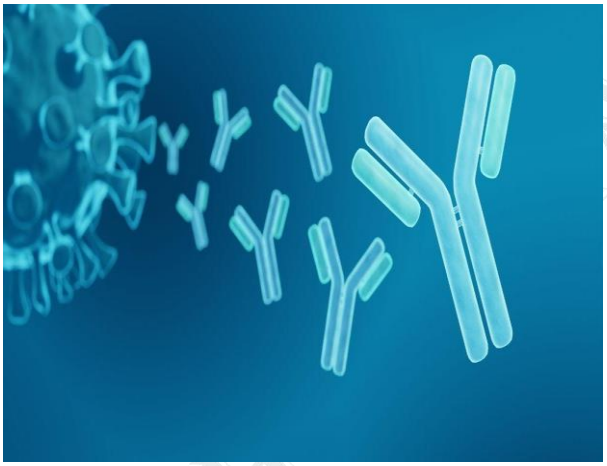
But nowadays many kinds of chemicals are injected in cows to increase milk production in cows body which excretes in small portion as the mixture of milk from their body to the glass of humans which they intake very frequently as a part of their meal.

Cow milk consists a protein known as **CASEIN**. This CASEIN is of two types (A1&A2). A1 CASEIN or A1 BETA CASEIN, is atype of protein found in the milk of cows in Northern Europe andthe Americas. It is the genetic or chemically created variant of A2 BETA-CASEIN. When A1 CASEIN is digested then it produces peptide called BETA CASOMORPHIN – 7 (BCM-7) which is very harmful and also a severe threat to human society as it may cause critical diseases such as Type 1 Diabetes. A1 BETA CASEIN has 80% of CASEIN compound which is a serious threat to the human society. When A1 CASEIN produces BETA CASOMORPHIN then at the time of digestion this peptide take shape of BETA CELLS due to which they remain as undigested and destroys the BETA CELLS which results in Type 1 Diabetes.

A2 CASEIN PROTEIN or A2 BETA CASEIN is a type of proteinfound in mainly the older Indian breed of cow's(DESHI COWS). It is a natural protein found in cows. In cows milk the ratio of this BETA PROTEIN is only 20%. It is a digestible protein. Nowadays it is difficult to have A2 milk and the companies which are selling A2 milk is also not purely the A2 milk as in today's time all the dairy farmers just feed the cows with the vaccines or other pills which changes the genetic structure of cows. This genetic structure is passed from one generation to other in cows and then in future the cow's milk will be treated as the biggest threat to human society or as the untreatable poisonous disease.

II. TEST FOR TYPE-1 DIABETES

GAD ANTIBODIES- In some patients, however, a rare type of antibody is found, which is known as the anti-GAD antibody. These anti-GAD antibodies are usually formed against GAD 65. As the name implies, this antibody attacks the GAD65 enzyme, thus blocking the conversion of glutamate to GABA. Hence, the person is deprived of GABA, which leads to motor and cognitive problems associated with low GABA levels. Anti-GAD antibodies are produced by B cells, which cross the blood-brain barrier. Clonal expansion of B cells, anywhere in the body, along with autoantibodies plays an integral part in the pathology of many neurological disorders. Some of these neurological disorders are linked to GAD antibodies. These neurological diseases include subacute cerebellar ataxia, brainstem encephalitis, drug-refractory temporal epilepsy, and several forms of organ-specific autoimmune diseases. One such disorder is the rare condition known as anti-GAD positive antibody stiff-person syndrome (SPS). The SPS could be associated with the presence of various antibodies. However, this article focuses on all the possible neurological syndromes associated with positive anti-GAD antibodies.



III. CONCLUSION

Type 1 diabetes can be treated and is a curable disease . It can be cured by Good diet, Yoga, Pranayama , Naturopathy and Acupressure.