A MONTHLY PUBLICATION OF DIABETIC ASSOCIATION OF PAKISTAN

Diabetes Digest

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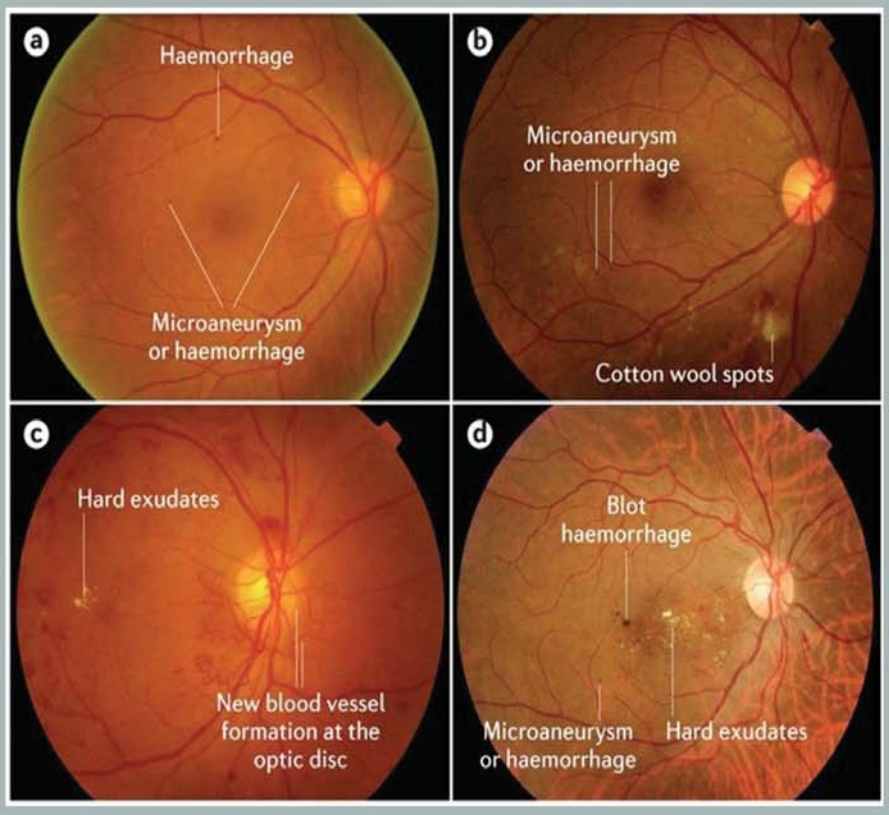

DIABETIC RETINOPATHY - A PREVENTABLE COMPLICATION OF DIABETES

Vol. 32 No. 2
FEBRUARY 2019

Diabetes Digest

Vol. 32 No. 02
FEBRUARY 2019

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Published by : Prof. A. Samad Shera, Printed at Siddiqi Printing Corp.
5-E/3, Nazimabad, Karachi-74600.
Ph : 36620302
E-mail : siddiqiprintingcorporation@yahoo.com
Declaration No. 285/88 May 31, 1988

Diabetes Digest Rs. 50/- Per Month
Annual Subscription Rs. 500/- only
Payment by Cash / Pay order / Bank Draft
To Diabetic Association of Pakistan

EYE DISEASES ASSOCIATED WITH DIABETES

Diabetic Retinopathy (DR): Occurs when the tiny capillaries within the light-sensitive retina become damaged and balloon outward (these are called microaneurysms). Over time, these fragile blood vessels may begin to leak blood and fluid. This early stage of retinal damage does not typically affect vision, and is known as Non-proliferative Retinopathy. As the condition progresses, fluid swelling may compromise vision (diabetic macular oedema) and abnormal, new blood vessels may grow, bleed and produce fibro-vascular scar tissue that detaches the retina (Proliferative Retinopathy), leading, without prompt treatment, to blindness.

Cataract: Clouding of the eye's internal lens resulting in loss of vision. This is much more common and occurs at an earlier age in people with diabetes than in people without diabetes.

Glaucoma: Damage to the optic nerve associated with increased internal eye pressure, leading to permanent loss of vision with few or no symptoms until late in the disease.

Anterior Ischaemic Optic Neuropathy: Sudden loss of blood supply to the optic nerve resulting in severe vision loss (analogous to a stroke of optic nerve).

Keratopathy: Chronic damage to the cornea, causing irritation, redness, dry eye, reflex watering of the eyes and sometimes, impaired vision.

Eye Muscle Palsy: Loss of

DIABETES AND SMOKING
A RISKY COMBINATION

- Smoking raises your blood sugar levels.
- Smoking increases your Cholesterol.
- Smoking cuts the amount of Oxygen reaching tissues.
- Smokers with diabetes are more likely to develop nerve damage (neuropathy) and kidney disease (nephropathy).
- Smoking increases the chances of permanent vision loss or blindness.
- Smoking increases muscles and joints pain.
- Smoking with diabetes have more problems with dental disease, bleeding gums and ulcers.

Therefore stop smoking

or

If you don't smoke, then donot start

Dear Children “Friends of Diabetes”

This winter has been colder than every year. I hope you enjoyed the weather. I am confident that the weather was not a reason for you not performing your daily physical activity, as games and exercise. You do understand how important these are for your health and blood sugar control. They also help in keeping your weight from increasing too much. A fat child is not a pleasant sight and also can not take part in games. Try to eat a healthy diet by including vegetables and fruits in your meals. Some children are not fond of vegetables. Their mothers have a difficult time in persuading them to eat the very delicious vegetables, which contain lots of vitamins, Remember good health can be achieved by a balanced diet and exercise.

Enjoy your food and your games.

Your Uncle

How Can Diabetic Eye Complications Be Prevented?

- Maintain a near normal blood sugar level
- Keep your blood pressure in the normal range
- Do not smoke
- Do not strain your eyes by long hours of television viewing
- Do not stay in strong sunlight for long periods
- Have your eyes examined every year

What Is Diabetic Retinopathy?

By: Kierstan Boyd
Reviewed By: G Atma Vemulakonda, MD

People with diabetes can have an eye disease called diabetic retinopathy. This is when high blood sugar levels cause damage to blood vessels in the retina. These blood vessels can swell and leak. Or they can close, stopping blood from passing through. Sometimes abnormal new blood vessels grow on the retina. All of these changes can steal your vision.

Stages of Diabetic Eye Disease
There are two main stages of diabetic eye disease.

NPDR (non-proliferative diabetic retinopathy)
This is the early stage of diabetic eye disease. Many people with diabetes have it.

With NPDR, tiny blood vessels leak, making the retina swell. When the macula swells, it is called macular edema. This is the most common reason why people with diabetes lose their vision.

Also with NPDR, blood vessels in the retina can close off. This is called macular ischemia. When that happens, blood cannot reach the macula. Sometimes tiny particles called exudates can form in the retina. These can affect your vision too.

If you have NPDR, your vision will be blurry.

PDR (proliferative diabetic retinopathy)
PDR is the more advanced stage of diabetic eye disease. It happens when the retina starts growing new blood vessels. This is called neovascularization. These fragile new vessels often bleed into the vitreous. If they

only bleed a little, you might see a few dark floaters. If they bleed a lot, it might block all vision.

These new blood vessels can form scar tissue. Scar tissue can cause problems with the macula or lead to a detached retina.

PDR is very serious, and can steal both your central and peripheral (side) vision.

Diabetic Retinopathy Symptoms

You can have diabetic retinopathy and not know it. This is because it often has no symptoms in its early stages. As diabetic retinopathy gets worse, you will notice symptoms such as:

- seeing an increasing number of floaters,
- having blurry vision,
- having vision that changes sometimes from blurry to clear,
- seeing blank or dark areas in your field of vision,
- having poor night vision, and
- noticing colors appear faded or washed out losing vision. Diabetic retinopathy symptoms usually affect both eyes.

Diabetic Retinopathy Diagnosis

Drops will be put in your eye to dilate (widen) your pupil. This allows your ophthalmologist to look through a special lens to see the inside of your eye.

Your doctor may do **fluorescein angiography** to see what is happening with your retina. Yellow dye (called fluorescein) is injected into a vein, usually in your arm. The dye travels through your blood vessels. A special camera takes photos of the retina as the dye travels throughout its blood vessels. This shows if any blood vessels are blocked or leaking fluid. It also shows if any abnormal blood vessels are growing.

Optical coherence tomography (OCT) is another way to look closely at the retina. A machine scans the retina and provides detailed images of its thickness. This helps your doctor find and measure swelling of your macula.

Diabetic Retinopathy Treatment

Your treatment is based on what your ophthalmologist sees in your eyes. Treatment options may include:

Medical control

Controlling your blood sugar and blood pressure can stop vision loss. Carefully follow the diet your nutritionist has recommended. Take the medicine your diabetes doctor prescribed for you. **Sometimes, good sugar control can even bring some of your vision back.** Controlling your blood pressure keeps your eye's blood vessels healthy.

Medicine

One type of medication is called anti-VEGF medication. These include Avastin, Eylea, and Lucentis. Anti-VEGF medication helps to reduce swelling of the macula, slowing vision loss and perhaps improving vision. This drug is given by injections (shots) in the eye. Steroid medicine is another option to reduce macular swelling. This is also given as injections in the eye. Your doctor will recommend how many medication injections you will need over time.

Laser surgery

Laser surgery might be used to help seal off leaking blood vessels. This can reduce swelling of the retina. Laser surgery can also help shrink blood vessels and prevent them from growing

again. Sometimes more than one treatment is needed.

Vitrectomy

If you have advanced PDR, your ophthalmologist may recommend surgery called vitrectomy. Your ophthalmologist removes vitreous gel and blood from leaking vessels in the back of your eye. This allows light rays to focus properly on the retina again. Scar tissue also might be removed from the retina.

Preventing vision loss from diabetic retinopathy

- If you have diabetes, talk with your primary care doctor about controlling your blood sugar. High blood sugar damages retinal blood vessels. That causes vision loss.
- Do you have high blood pressure or kidney problems? Ask your doctor about ways to manage and treat these problems.
- See your ophthalmologist regularly for dilated eye exams. Diabetic retinopathy may be found before you even notice any vision problems.
- If you notice vision changes in one or both eyes, call your ophthalmologist right away.
- Get treatment for diabetic retinopathy as soon as possible. This is the best way to prevent vision loss.

Do you have diabetes and need an exam for eyeglasses?

Changes in blood sugar levels can affect your vision. Make sure your blood sugar is under control for at least a week before an eye exam. Eyeglasses prescribed when your blood sugar levels are stable work best!

Proliferative Diabetic Retinopathy (PDR) Vision Simulator

PDR is the growth of new blood vessels on your retina. These new blood vessels can bleed inside the eye. A few new specks or spots floating in your vision could mean you have PDR.

Non-Proliferative Diabetic Retinopathy (NPDR) Vision Simulator

With NPDR, tiny blood vessels leak, making the retina swell. This is called macular edema. Blood vessels in the retina can also close off, which is macular ischemia. Sometimes tiny particles can form in the retina. If you have NPDR, your vision will be blurry.

Source:

https://www.aao.org/eye-health/diseases/what-is-diabetic-retinopathy

Train Your Brain for Better Habits

The trick to breaking bad habits and developing healthy ones

By Barbara Brody

Every morning when your alarm goes off, you grab your cell phone and start scrolling. Sometimes you start doing it before your eyes are fully open—almost without thinking. You're in similar autopilot mode when you reach for the towel on the right side of the towel rack instead of the left and drive to work following the exact same route you always take. These habits are all so ingrained in your brain that you don't have to devote any serious energy to making them happen. They just do.

A habit, by definition, is something you do regularly and without much thought. There are "good" habits (such as checking your blood glucose throughout the day) and "bad" ones (smoking cigarettes). Some form quickly or accidentally, and others take quite a bit of effort to adopt, but one thing is clear: Once a habit is solidified, it's pretty hard to break. People with diabetes hear a lot about healthy lifestyle habits, such as exercising more often, cutting back on saturated fat, and nixing sugary drinks. While you can certainly make yourself do any of these things, it might not be easy. That's because—at least in the beginning—these aren't really habits; they're behaviors.

A healthy behavior can turn into a habit, of course, but it doesn't happen overnight. Take exercise. Some people wake up and debate if they should sleep in or go for a jog. Whether they end up rolling over or lacing up their sneakers, they're choosing to perform a behavior. Others hear the alarm and start getting ready for their workout before

they're fully awake. "It's not even a decision," says Theresa Desrochers, PhD, assistant professor of neuroscience and psychiatry and human behavior at Brown University.

So how can you take a desired behavior and turn it into a true habit? According to neuroscientists, psychologists, and other behavior-change experts, there are specific, proven steps you can take to transform a new behavior into an effortless habit.

How Habits Are Formed

Although the science is still emerging, there's enough research on habit formation in the brain (mostly on animals) for neuroscientists to have some solid theories. You may not spend a lot of time thinking about your brain, but if you're interested in habit formation, it's worth a brief tour.

Deep inside your brain lies a group of structures collectively known as the basal ganglia. The basal ganglia is like a command center that's constantly receiving data, processing it, and sending it back out. "It gets information from just about everywhere else in the brain, including the visual and motor cortex that are on the surface of the brain," says Desrochers. The information going in and out of the basal ganglia runs along pathways, or loops.

Neuroscientists believe that when thoughts and actions happen repeatedly and at the same time, your basal ganglia tries to keep them together for the sake of efficiency, so they start to travel along the same or linked loops. Over time, this creates a situation in which a trigger (or cue) prompts a default action—in other words, a habit.

Let's say your doctor has advised you to do regular foot checks to make sure you haven't developed any blisters, wounds, or signs of infection. If you attempt to do this randomly from time to time, you'll likely forget. **But if you start looking over your feet every single time you take off your socks, after a while the message in your brain that says "time to take off my socks" will start to be associated with "time to give my feet a once-over."**

As you get more and more accustomed to putting those two things together, the loops in your brain that connect all the related thoughts and actions (including motor skills, like those needed to remove your socks; visual ones that allow your eyes to clearly see your feet; and cognitive processes that let you make sense of what you're seeing and doing) get stronger and stronger.

At the same time, something starts changing within the basal ganglia—specifically, in one part called the striatum. This striped structure is divided into two sections: ventral and dorsal. The ventral section is most active when you're getting used to doing something new, says Scott Russo, PhD, director of the Center for Affective Neuroscience at the Icahn School of Medicine at Mount Sinai. It's loaded with receptors for dopamine, a feel-good brain chemical; when you do something that's pleasurable, you get a spike of dopamine that makes you want to do it again.

After a while, the dorsal half of the striatum takes over, suggests a study published in 2015 in *Neurobiology of Learning and*

Memory. At that point, you no longer need a reward because the habit has become solidified in your brain.

In one of Desrochers' studies, published in the journal *Neuron*, she and her colleagues took a group of monkeys and waited for them to look behind a grid of dots to find a reward (a squirt of juice). In the beginning, the monkeys did this randomly, but over time that changed. "The monkeys made their own habits and started to look around the same way each time," says Desrochers. As they did, the researchers monitored the monkeys' brain activity to see how much effort they had to put into finding the reward. "As the monkeys' method of searching got more habitual, neural activity became more efficient," she explains.

Making Healthy Changes Stick

Of course, not every healthy behavior starts out as pleasurable. Checking your blood glucose isn't fun, but it's still a must. Can you turn it into a real habit as opposed to something you must continually force yourself to do? Maybe, but your best chance is to find something rewarding about it. One simple option: **Grab a piece of paper, draw yourself a chart, and give yourself a check mark every time you check your blood glucose.** Just making the check mark can feel rewarding, and watching those checks add up even more so, especially if you treat yourself to a book or other goody when you get 20 checks in a row. Or take it (slightly) higher tech: Download an app such as HabitBull, and watch all the green dots add up.

Long-term rewards—when you see improvements in your A1c, for example—can also be motivating, but those are harder to get excited about on a day-to-day basis. The problem, says Leonard Epstein, PhD, a professor at the University of Buffalo and a researcher for the Science of Behavior Change initiative at the National Institutes of Health, is that we tend to undervalue future rewards. You know the forthcoming reward is valuable, but you still appreciate it less than the reward you can get right now.

Consider, for instance, working out. If you start exercising every day, "maybe you'll have lost 5 to 10 pounds six months from now," says Russo. "It's hard for your brain to put that behavior and that result together."

Perhaps not surprisingly, research shows that people who find exercise itself enjoyable tend to stick with it longer. In a study published in 2017 in *Personality and Social Psychology Bulletin*, researchers asked gym-goers to rate how much they enjoyed their workouts as well as how important it was to them to exercise to stay healthy. Those who said exercise was really enjoyable logged longer sweat sessions; appreciating exercise for health's sake didn't seem to matter. One way to up the enjoyment factor: **Schedule regular workout dates with friends.** You may not like to exercise, but you do love catching up with pals.

Set yourself up for success by breaking down a bigger behavior change into baby steps. Achieving "small, easy wins" can boost your confidence, notes Monica Peek, MD, MPH, a researcher with the Improving Diabetes Care and Outcomes on the South Side of

Chicago project. If your goal is to eat a more plant-based diet but you're currently a meat-lover, don't try to become a vegetarian overnight; instead, start by experimenting with some new veggies or those you haven't tried in a while. When you find one you like, you'll be excited and feel good about yourself (the reward), which might encourage you to add the veggie to meals or continue trying new ones.

Another way to make a behavior that's good for you in the long run seem rewarding right now: **Bring the distant reward into sharper focus.** Epstein, who's currently studying how to help people with prediabetes avoid type 2, believes he's found a way to do that. In a (not-yet-published) study, he and his colleagues asked participants to home in on their motivations for wanting to make certain lifestyle changes designed to prevent them from getting full-blown diabetes. The more specific and emotional, the better. "I want to live longer" won't cut it, but this motivation will: "I want to live long enough to be around for the birth of my grandchild, and I can picture the smile on both of our faces when I'm holding him."

To keep that distant reward top of mind, Epstein's team had study participants record detailed info about why they were motivated to make a change. Then participants were told to play back the messages as often as necessary, especially whenever they found themselves needing extra motivation to stick with a desired behavior. You can try a similar tactic using a voice recorder app on your smartphone.

Get a Cue

Even if you feel rewarded when implementing a desired behavior, you're still a few steps away from creating a habit. That's because the recipe for habit formation also includes cues, repetition, and time.

"A habit is really a memory of what you're accustomed to doing in a particular situation," says Art Markman, PhD, professor of psychology at the University of Texas at Austin and author of *Smart Change*. "You get into that situation, the memory gets activated, and it drives you to a specific behavior."

What sets the process in motion is a cue. "For a lot of smokers, having a cup of coffee is what triggers them to reach for a cigarette," says Desrochers. But cues work for good habits, too: **Your sneakers stashed by the bed can become a cue to exercise in the morning; brushing your teeth can become the cue to floss.**

If you're having a hard time remembering to do finger pricks every morning, try leaving your meter on the kitchen counter next to your coffee pot. **If you already have a habit of grabbing a cup of coffee first thing, seeing your supplies right next to the pot can become the cue to check your blood glucose.** After a while, just a whiff of java might be enough to remind you that you need to do a glucose check.

Repetition—and Patience

A lot of people wonder how long they have to nudge themselves to do something they really don't want to do before it becomes second nature. You might have heard that it takes 66 days to form a habit, but it's not that simple. That number is from a

2009 study at University College London, and it represents an average. Some of the study participants developed a habit within a mere 18 days; for others, it took the better part of a year (254 days).

Why the discrepancy? It has to do with myriad factors, from how malleable you are, how pleasurable the desired habit is, what else is going on in your life, whether or not you've set up strong enough cues, and so on. "There are a lot of myths out there and some research, but in my experience coaching people I haven't identified a magic number," says Michelle Segar, PhD, MPH, director of the University of Michigan's Sport, Health, and Activity Research and Policy Center.

Bottom line: You may have to be very patient, but **the more you repeat a behavior, the more likely it is to eventually turn into a habit.** "Both repetition and consistency—doing something the same way over and over—are important," says Desrochers.

Out With the Bad

Maybe your current issue isn't forming a healthy new habit but breaking an unhealthy old one. It's doable, but not easy: Once a habit has become encoded in your brain, erasing it is about as easy as getting an ink stain out of your favorite white shirt

Studies show that habits become so entrenched that they're hard to break even when you take the reward away. "You can teach a bat to press a bar and get a pellet of food, then have them do it over and over again," says Desrochers. "After a while, even if you devalue the reward—you change the food to make it taste bad—the animal sticks with the behavior."

To undo a bad habit, forget about willpower. While your brain is equipped to put the brakes on an action you know you shouldn't take, your ingrained habits are going to be stronger and eventually win out, says Markman.

Instead, **think about what's keeping that habit in place and work to break it down step by step.** For starters, think about the cues that initially helped you form the particular habit or that might be keeping it in place. If, for instance, you have a tendency to reuse lancets, it means you're using a lancet and then placing it somewhere other than where it belongs: in a sharps container. Start pricking your finger and putting the lancet directly into that container and—just like that—it's no longer available for reuse. Do that over and over and your bad habit will eventually be wiped out.

Source: Diabetes Forecast January/February 2019

The Secret to Dealing With Setbacks

What you need to know to bounce back from adversity

By Andrew Curry

Dina Carter, RN, may be a registered nurse, but even she doesn't like needles. When Carter was recruited to lead resilience-training classes for African Americans with type 2 diabetes in Austin, Texas, she was nervous.

It was 2007, and the class was part of an experiment run by University of Texas health education researcher Mary Steinhardt, EdD. Steinhardt's goal was to see if teaching people with diabetes strategies to improve their resilience, or ability to bounce back from setbacks, would have a bigger impact on their health than standard diabetes education.

Steinhardt recruited members of African American churches in the Austin area. Some of the participants took a typical diabetes education class. The rest were given a resilience-oriented curriculum that taught them ways to improve their social support networks, make small behavioral changes, and build a positive mindset regarding their diabetes.

Carter, then 58, was both an instructor and a participant. But for the first few sessions, she told her fellow participants she'd forgotten the logbook she was supposed to be using to record her blood glucose levels. "I was afraid to stick myself," she says. "And I was ashamed to let them know that I was a nurse and I was afraid."

When she finally admitted the truth in class, she found she wasn't alone—and that she was using an out-of-date meter that required a large drop of blood,

making monitoring her blood glucose more painful than it needed to be.

Over the course of the eight-week program, she and the other participants formed a tight-knit group. "We bonded, we learned how to problem-solve, and we learned that we had a lot in common," Carter says. "We came to realize we could manage diabetes and make changes. If you stumble, you can always come back and start again."

Snapping Back

That's resilience in a nutshell: the ability to recover from setbacks, to rebound from bad news or difficulties. The term, which has been the focus of attention in psychology circles for decades, has been applied to everything from grief to post-traumatic stress disorder to, yes, a life-changing diagnosis such as diabetes. "Resilience includes emotional regulation, coping ability, and social support," Steinhardt says.

The importance of resilience has sparked a growing movement to incorporate the latest resilience research into diabetes prevention and treatment. "Having diabetes is so demanding and so nonstop that anyone with diabetes has challenges to overcome," says Marisa Hilliard, PhD, a pediatric psychologist at Baylor College of Medicine in Houston.

Born to Bounce Back?

So where does resilience come from? Although it's possible to build resilience, some researchers look at it as a personality trait; in other words, it's a quality you're born with.

To understand the impact of resilience on people's chances of developing diabetes, Casey Crump, MD, PhD, an epidemiologist and family practice physician at the Icahn School of Medicine at Mount Sinai in New York, looked at a surprising source: Swedish military exams.

In Sweden, military service is mandatory for men. Since the 1960s, nearly all Swedish men have been interviewed by trained psychologists as part of their evaluation for military duty. The half-hour interview is designed, in part, to measure their capacity for resilience in combat and to see if they'd make good leaders.

Because of the way the Swedish health system works, it's possible to link the scores men were given as teenagers to their health outcomes much later in life. "We were able to link longer-term outcomes to much earlier assessments of stress resilience for nearly the entire male population," Crump says. "We found that low stress resilience is pretty strongly associated with a high risk of developing type 2 diabetes later in life."

What wasn't clear from the study, published in 2016 in the journal *Diabetologia*, is why. There could be a few things going on: One possibility is that people with less innate resilience might be more likely to turn to smoking or adopt unhealthy eating habits to deal with stress in their lives, says Crump.

Another possibility is that more-resilient people are less physically affected by stress. When we encounter stressful situations, a hormone called cortisol is released in the body. Cortisol helps the body access the resources—glucose, for example—that it might need to

fight or flee from danger. The hormone is ideal for escaping predators, but when it's released on a regular basis, it takes a toll. High cortisol levels are associated with depression, as well as insulin resistance, weight gain, and type 2 diabetes.

Perhaps people with more resilience are simply less likely to get stressed, so they stay healthier. "People with stress resilience have lower physiological responses to stress and more well-adapted lifestyle factors," says Crump. "They're probably exposed to less persistent high levels of cortisol over the course of their lifetime."

Steinhardt, too, sees stress playing a big role in type 2 diabetes. Stress can create a vicious circle that makes it harder to care for your diabetes. "It's important to acknowledge that type 2 diabetes is a chronic stressor," she says. "When individuals with diabetes are stressed, they often eat more, skip visits to the doctor, and don't take their meds."

Growing Resilient

Although some people might naturally have more resilience than others, experts say there is plenty of evidence that everyone can develop more of it. Some even argue that looking at resilience as a trait is limiting, or even discouraging. "If you think about resilience as something you have or don't have, there's not a lot of hope there," Hilliard says.

Crump, the researcher who found a connection between resilience as a young adult and type 2 diabetes rates, says that resilience can be acquired. "There is a good body of evidence that shows stress resilience is modifiable," he says. "It's not innate and unchanging."

That means programs such as the one in Austin that changed Carter's approach to her diabetes are full of promise. By teaching people how to make small, positive changes, build or discover supportive networks in their communities, and be mindful of stressful circumstances in their lives, the course helped reduce stress levels. That's essential for people with diabetes, as well as those at risk for prediabetes and type 2. "It's important to recognize stress management is an important part of the prevention of diabetes across the life course," Crump says. "People with risk factors should include stress reduction as part of their health plan."

Not all researchers approach resilience this way. Hilliard, for example, tells teens with type 1 diabetes—and their parents—that resilience is a goal you can work toward, not a quality you're born with. "We define resilience as the achievement of a positive outcome despite challenges or adversity," she says.

Indeed, the program designed by researchers at the University of Texas is just one piece of evidence showing that resilience can be taught. "Some of us are born into the world with a greater capacity to bounce back from adversity. Some people are great in a crisis. In that sense, it's a trait," says Steinhardt. "But I can grow my resilience. We all have different dispositions, but within what we're born with, we can grow."

Whether innate or learned, resilience can help people with diabetes tackle their disease. The people who participated in

Steinhardt's study saw concrete results, according to a paper published in 2015 in the *American Journal of Health Behavior*: People who took part in the resilience-based education program checked their blood glucose more often, had lower blood glucose levels, and reported a more positive outlook on life.

Carter's A1C (a measure of blood glucose) hovered around 8 percent when she started the program and had dropped nearly two points by the end. Thanks to the lessons she learned and the supportive community she found, she's managed to keep her blood glucose at American Diabetes Association–recommended levels ever since. "I'm not on insulin and I'm only taking one pill," she says. "I've improved a whole lot since 2007."

Teens With Type 1

Baylor College of Medicine psychologist Marisa Hilliard, PhD, is focused on another group for whom resilience is crucial: teens who have been diagnosed with type 1 diabetes. A diagnosis alone can be difficult. And then there are kids who have extra challenges to deal with, such as difficulty accessing health insurance or medication.

Hilliard says parents and health care providers can help by focusing on what teens are doing right in terms of achieving resilience—what she calls their "diabetes strengths." "There are things teens can do well, maybe naturally. Maybe they have lots of social support and talk easily with their friends about their diabetes," Hilliard says. These things can help teens bounce back from a type 1 diagnosis.

The larger idea is to recognize and reinforce natural resilience and teach skills that will help teens manage a particularly stressful time in their lives. "It's not rocket science. It's behavioral science," she says. "When you recognize or reinforce behavior, people tend to do more of it. And the data shows that the more you can support teens, the more they develop good habits later in life."

How to Be More Resilient

As part of her resilience workshop, Mary Steinhardt, EdD, a University of Texas health education researcher, gives participants some key recommendations for building resilience:

1. **Adopt a positive mindset.** Focus on positive emotions: awe, wonder, hope. Doing so will help keep your spirits up in hard times.
2. **Take small steps.** Making a new healthy habit, such as taking the stairs, part of your routine is easier than trying to fix everything all at once.
3. **Stay connected.** In the game of life, "your family and friends are your cheerleaders, and your health care providers are your coaches," Steinhardt says. Staying connected to the community around you is a key part of resilience.
4. **Seek kindness.** Surround yourself with people who are kind to you—and be kind to yourself, too.

Source: Diabetes Forecast January/February 2019

What To Know About Maturity Onset Diabetes Of The Young (MODY)

By Matt McMillen

Susie Perkowitz, a longtime endurance runner, never felt this way after a race. After completing a 120-mile run in Colorado, she was so foggy-headed and unsteady on her feet that she thought she might pass out. Once she was home in Chicago, she shared her symptoms with her sister, a registered nurse, then promptly went to the ER. Doctors ran a series of tests, including an A1C blood test. Their diagnosis: Perkowitz had type 2 diabetes.

She began taking the oral medication metformin to help reduce her blood glucose. But it made her sick and her blood glucose didn't budge. "I was so dizzy, shaky, weak, and nauseous that I could barely get out of bed for the first few months," recalls Perkowitz. Even on her best days, she didn't have the energy to run, which had long been her passion. And spells of blurry vision, which she'd had for years and wrote off as tired eyes, became more frequent and pronounced. Eventually, she learned that she had severe diabetic retinopathy in both eyes, a result of poorly managed blood glucose.

"Knowing that the treatment I was receiving was ineffective, the situation felt hopeless, like I was destined to get sicker and sicker and I wouldn't have a future," she says. It never dawned on her that she had been misdiagnosed.

Finally, three years later, in 2016, she was referred to a new doctor, who ordered a different set of tests. Genetic testing revealed her true diagnosis: She had maturity onset diabetes of

the young, or MODY.

Different Diabetes

MODY is a much less common form of diabetes than type 1 and type 2—and it's quite different. While several genes and other factors contribute to the development of type 1 and type 2 diabetes, MODY results from an alteration, or defect, in a single gene. That's why it's referred to as "monogenic.

So far, researchers have identified at least 13 types of MODY, each one caused by a different gene. Of those, three types account for more than 80 percent of MODY diagnoses. Overall, though, MODY makes up fewer than 3 percent of all diagnosed diabetes cases, according to a study published in 2012 in Diabetologia; however, the study authors acknowledge, this number may underestimate the true number of people with MODY.

"People with MODY are usually diagnosed under the age of 40, but it can happen at any age," says Liana Billings, MD, an endocrinologist and the director of the Personalized Medicine in Diabetes Consultation Clinic at NorthShore University HealthSystem in Skokie, Illinois. "Not only is the MODY diagnosis often delayed, but some people go undiagnosed."

Wrong Diagnosis, Wrong Treatment

Because physicians encounter MODY so infrequently, if ever, they seldom consider it when they see a patient who has the hallmarks of diabetes, such as high fasting blood glucose and a high A1C. So, almost by default, they diagnose the better-known varieties: type 1 or type 2.

When young, thin people have diabetes symptoms, such as weight loss and frequent urination, doctors often think type 1, says endocrinologist and epidemiologist Miriam Udler, MD, PhD, a MODY researcher and director of the Massachusetts General Hospital Diabetes Genetics Clinic in Boston. However, type 1 diabetes is an autoimmune disease that produces certain antibodies in your blood. If tests fail to show you have those antibodies, you may not have type 1.

"But sometimes antibodies are not checked," says Udler. The result: an incorrect diagnosis of type 1 diabetes, followed by a prescription for insulin when another drug, such as a sulfonylurea, may be more effective. "Insulin is expensive, it requires a pump or several injections a day, and it increases the risk of low blood glucose," Udler says.

When a doctor rules out type 1, however, often the only other possibility considered is type 2, says Udler, especially among people in their late 20s or 30s, as was Perkowitz. An estimated 80 to 90 percent of people with MODY are misdiagnosed, says MODY specialist Rochelle Naylor, MD, a pediatric endocrinologist at the University of Chicago and coinvestigator for the Kovler Monogenic Diabetes Registry. "And having the wrong diagnosis can make the doctor choose the wrong treatment."

The Diagnosis Is Right

After finally receiving a MODY diagnosis, Perkowitz went off metformin. Her doctor prescribed a sulfonylurea to increase her insulin production. "My blood glucose normalized instantly, and I felt a million times

better," she says. "It was almost miraculous."

This is a typical outcome for people with two specific types of the disease: HNF1A-MODY and HNF4A-MODY (the kind Perkowitz has). "Both respond well to a sulfonylurea," says Udler. "It lifts the burden of daily care, especially for those taking insulin. Their diabetes not only becomes much better controlled, but there's a lot of anxiety relief when they get the right diagnosis."

Many people with HNF1A-MODY or HNF4A-MODY won't need another medication; however, a sulfonylurea won't work for everyone. Its effects may begin to wane, or it may lead to recurring low blood glucose (hypoglycemia). Other drugs can be helpful, but more research must be done in order to determine the most effective treatments. "At this point, we have to take a personalized approach with each person who has MODY," says Billings. "We're only at the beginning of understanding the best ways to treat MODY."

For Perkowitz, treatment has been transformative. Since that visit to the ER in 2013, her A1C has gone from 10.1 percent to 5.3 percent. "It's lower than it's ever been," she says.

Special Attention

If you have HNF1A-MODY or HNF4A-MODY, you probably won't need to see a specialist, though you and your primary care doctor may want to consult a MODY expert to establish a plan for switching from your current treatment to a MODY-specific treatment, says Naylor. For the other, rarer forms of MODY (which will often require insulin), or in cases where genetic testing does not return a clear result, "you definitely want to consult with a specialist," she says.

Unfortunately, MODY experts, like MODY itself, are not common. Naylor encourages people with MODY to reach out to the University of Chicago's Monogenic Diabetes Registry (see "MODY Meeting Place," below).

Naylor says that more research is underway to determine how best to identify who has MODY in a timely manner. Currently, years often pass before receiving a proper diagnosis, as happened to Perkowitz. Once you've been diagnosed with MODY, your specialist may recommend genetic testing for the rest of your family or a consultation with a genetic counselor.

As a patient advocate for the Monogenic Diabetes Research and Advocacy Project at the University of Maryland School of Medicine in Baltimore, Perkowitz works to raise awareness about MODY. And she encourages people who struggle to manage their diabetes to talk to their doctors about it. Her message: "If you're following the standard treatment and it doesn't help, get a second opinion."

Now that she's on an effective treatment, she's getting back to her normal life—and to running. Her next race: the 120-mile TransRockies Run. The six-day race represents a full-circle moment for Perkowitz. "It's the race I did just before my diagnosis," she says.

MODY at a Glance

What is MODY?

Maturity onset diabetes of the

young (MODY) is a type of diabetes caused by a defect in a single gene.

How common is it?
It's rare. Only 1 to 3 percent of people with diabetes have MODY.

Those who inherit a gene responsible for MODY (13 have been identified) may eventually develop it. If one of your parents has MODY, you have a 50 percent chance of inheriting it and a high probability of developing MODY if the gene is inherited. Because genes play such a significant role in the development of MODY, your family history can provide key clues that may help your health care provider accurately diagnose you.

How is it treated?
Some types require insulin; others are treated with sulfonylureas. Research has yet to determine the best treatments for all types.

No Meds Needed
Of the three most common types of MODY, one requires no treatment at all. GCK-MODY, which results from a mutation in a gene called glucokinase, causes a slight but noticeable and persistent uptick in blood glucose. But because the elevation in glucose is so modest, and stopping treatment is not thought to alter the risk of disease-related complications, it doesn't require treatment. The only people with GCK-MODY who might benefit from treatment are pregnant women.

MODY Meeting Place
The Monogenic Diabetes Registry at the University of Chicago encourages people whose diabetes has a known genetic cause to join the registry. If you think you have MODY and meet certain criteria—listed on the website—you can sign up to be screened. The registry has several goals: to accurately diagnose people with MODY, to provide a true count of people with this uncommon form of diabetes, to learn more about its causes, and to develop better treatments.

Source: Diabetes Forecast January/February 2019

Mission

The Mission of the Diabetic Association of Pakistan is to provide specialized Medical Care and Education to the people with diabetes.

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مقدار کا تعین ہمیں غذائی مقدار، ورزش اور دیگر عوامل کو دیکھتے ہوئے کرنا پڑتا ہے۔ غذائی پرہیز اور ورزش علاج کا حصہ رہے گا۔ لبلبہ کی پیوندکاری اتنی آسان نہیں اور بہت مہنگی بھی۔ جبکہ پیوندکاری کے بعد کے لوازمات اور بھی مشکل اور مہنگے ہوتے ہیں۔ لہٰذا اپنے علاج پر توجہ دیں اور اپنے معالج سے رابطہ میں رہ کر ان کی ہدایات پر عمل کریں۔

سوال: انسولین لگانے کا صحیح طریقہ کیا ہے؟ (سلطانہ۔ حیدرآباد)

جواب: انسولین انجکشن سرنج اور پین میں دستیاب ہیں۔ انسولین انجکشن لگانے کی خاص جگہیں ران کے سامنے اور اطراف کا حصہ اور پیٹ ہے۔ انسولین انجکشن کھانے سے آدھ گھنٹہ پہلے لگایا جاتا ہے لیکن اگر زود اثر انسولین ہے تو وہ کھانے سے 5 منٹ پہلے لگاتے ہیں۔ انسولین انجکشن لگانے کے لئے جگہوں کو صاف کرنے کی ضرورت نہیں ہوتی۔ سپرٹ یا الکوحل کا پھایا بالکل استعمال نہ کیا جائے۔ انسولین لگانے کی جگہ کا انتخاب کرکے انگوٹھے اور شہادت والی انگلی سے پکڑ کر ابھار لیں پھر سرنج یا پین کی سوئی بالکل سیدھی ڈال دیں۔ انجکشن کا محلول اندر داخل کردیں۔ پہلے دونوں انگلیوں کو ہٹائیں پھر انجکشن کی جگہ کو آدھے منٹ تک صاف روئی سے دبا کر رکھیں، مسلیں نہ۔ اسطرح نہ خون نکلے گا اور نہ ہی دوا اور کوئی ابھار بھی نہیں پیدا ہوگا۔ اگلا انجکشن کچھ فاصلہ دیگر لگائیں۔ پیٹ پر انجکشن ناف کے چاروں طرف 2 انچ فاصلہ چھوڑ کر لگائیں۔ اگر ریگولر اور این پی ایچ انجکشن ملا کر لگانا ہے تو سرنج میں پہلے پانی والا (ریگولر) بھریں پھر اس میں بقایا دودھ والا (این پی ایچ) شامل کرلیں۔ پین میں یہ سہولت دستیاب نہیں۔ پین کی صورت میں پانی والا اور دودھیا الگ الگ لگانا ہے۔ انجکشن لگانے کے بعد سوئی کو فوراً کیپ لگادیں اور کسی صاف جگہ پر رکھ دیں۔

سوال: ذیابیطس میں مبتلا افراد کو کون کون سے ٹسٹس کروانے پڑتے ہیں؟ (شمیم حیدر۔ کراچی)

جواب: ذیابیطس میں مبتلا افراد کو جیسے ہی ذیابیطس کی تشخیص ہوتی ہے چند ضروری ٹسٹس کروانے پڑتے ہیں اور پھر سال میں ایک دفعہ۔ گردوں کے افعال کی جانچ کے لئے پیشاب کا عام اور خصوصی ٹسٹ اور خون میں سیرم کریٹنن کا ٹسٹ، خون میں پچھلے تین سے چار ماہ کا اوسط گلوکوز کی سطح HbA1c کا ٹسٹ، خون میں Hb% کی سطح، جگر کا ٹسٹ خاص طور پر SGPT، آنکھوں کے پردے کا معائنہ اور خون میں چکنائی کا ٹسٹ۔ اسکے علاوہ تھائی رائڈ کا ٹسٹ۔ ذیابیطس قسم اول میں مبتلا افراد کو عموماً ذیابیطس کی تشخیص فوراً ہو جاتی ہے لہٰذا انھیں ذیابیطس کی تشخیص کے پانچ سال بعد اور پھر ہر سال آنکھوں کا معائنہ اور دیگر ٹسٹس کروائے جاتے ہیں۔۔ ذیابیطس قسم دوم میں مبتلا افراد کو فوراً اس وجہ سے کرایا جاتا ہے کہ ان افراد کو ذیابیطس کی تشخیص دیر سے ہوتی ہے۔

آپکے سوال اور انکے جواب

سوال: ذیابیطس میں مبتلا افراد کے پیشاب کے ٹسٹ میں پروٹین (لحمیات) ظاہر ہونے کی کیا اہمیت ہے؟ (طارق۔ سکھر)

جواب: ذیابیطس میں مبتلا افراد کو ذیابیطس کی تشخیص کے وقت اور پھر ہر سال پیشاب کا ٹسٹ ضرور کروایا جاتا ہے تاکہ گردوں کے افعال کے بارے میں معلوم ہوسکے۔ ذیابیطس میں مبتلا افراد کے پیشاب کے ٹسٹ میں پروٹین کی موجودگی بڑی اہمیت کی حامل ہے۔ پروٹین کی موجودگی کی وجوہات میں لمبے عرصہ کا فاقہ، نظام بول کا انفیکشنز اور ذیابیطسی عارضہ گردہ اہم ہیں۔ دوسری بیماریوں کی عدم موجودگی میں پیشاب میں پروٹین آنے کی وجہ گردوں پر ذیابیطس کے مضر رساں اثرات ہے۔ ذیابیطس اگر طویل عرصہ تک کنٹرول میں نہ رہے تو گردوں کے افعال پر مضر اثرات پڑتے ہیں جس میں سب سے پہلے پیشاب میں پروٹین کا اخراج ہے۔ ذیابیطس کی تشخیص ہوتے ہی پیشاب کا ٹسٹ برائے خوردبینی لحمیات (Microalbumin) کرایا جاتا ہے اسکی نارمل مقدار 30 اور 300 ملی گرام کے درمیان ہوتی ہے اور یہی وہ مرحلہ ہے جب تشخیص ہوجائے تو گردوں کو ناکارہ ہونے سے بچایا جاسکتا ہے۔ یہ ٹسٹ اسوقت مثبت کہلاتا ہے جب گردوں کی کوئی اور بیماری نہ ہو اور کم ازکم چھ ماہ میں دو دفعہ سے زیادہ ٹسٹ مثبت آئے۔ خوردبینی لحمیات کی موجودگی میں اکثر ڈاکٹر اے سی ای انہبٹر زادویات کم مقدار میں تجویز کرتے ہیں جو گردوں کو محفوظ رکھتی ہے۔ لہٰذا گردوں کو محفوظ رکھنے کیلئے ذیابیطس کا کنٹرول 24 گھنٹہ بہتر رہنا چاہیے اسکے علاوہ اگر بلند فشار خون بھی ہے تو اسکو بھی کنٹرول میں رکھنا انتہائی ضروری ہے۔

سوال: میں نے ٹی وی پر ایک اشتہار دیکھا جس میں بتایا گیا ہے کہ ذیابیطس کا جڑ سے خاتمہ۔ آپ لبلبہ کا علاج کریں اور وہ پھر سے کام کرنے لگے۔ آپکی اس علاج کے بارے میں کیا رائے ہے؟ (مختیار احمد۔ کراچی)

جواب: یہ اشتہارات عوام کو بے وقوف بنا کر روپیہ بٹورنے والے ہیں۔ ان پر آپ بالکل یقین نہ کریں۔ تاحال ناکارہ لبلبہ کا علاج سوائے لبلبہ کی پیوندکاری کے کوئی اور نہیں۔ ذیابیطس قسم دوم میں مبتلا افراد میں لبلبہ میں موجود بیٹا خلئے آہستہ آہستہ کم کرنا چھوڑ دیتے ہیں جس کی وجہ سے کچھ عرصہ کے بعد ادویات بذریعہ دہن کام نہیں کرتیں۔ لہٰذا شوگر کنٹرول کرنے کے لئے انسولین کی ضرورت پڑتی ہے جو کہ باہر سے دینی پڑتی ہیں۔ یہ انسانی جسم میں لبلبہ سے بننے والی انسولین جیسی ہی ہے بس اسے ہم خودکار طریقہ سے کنٹرول نہیں کرسکتے جو کہ انسانی جسم میں موجود لبلبہ کرتا ہے بلکہ اس کی

ہے۔

کیا آپ نے فشارِ خون معلوم کیا؟

بلند فشارِ خون پردے کے متاثر ہونے کے امکانات بڑھا دیتا ہے، لہٰذا ہر معائنہ پر اور وقتاً فوقتاً فشارِ خون ضرور چیک کروانا چاہیے۔

کوئی بھی علامت بینائی کے متاثر ہونے کی وجہ سے ہو تو فوراً دکھائیں۔

معمولی سی علامت و آثار بڑے مسئلہ کا پیش خیمہ ثابت ہوسکتی ہیں لہٰذا فوراً ڈاکٹر سے رجوع کریں۔

سگریٹ نوشی سے اجتناب:

تمباکو نوشی خون لے جانے والی بڑی اور مہین نالیوں کو متاثر کرتی ہے۔ آنکھوں کو سیراب کرنے والی خون کی نالیاں بہت ہی باریک ہوتی ہیں اگر متاثر ہوجائیں تو آنکھوں کے پردے متاثر ہوجاتے ہیں۔

ذیابیطس کو قابو میں رکھیں:

خون میں گلوکوز کی سطح مستقل کنٹرول میں رہنی چاہیے جو کہ عام افراد جنھیں شوگر کا مرض نہیں کے قریب قریب۔ مندرجہ ذیل ہدایات پر عمل کریں۔

☆ پرہیز سخت رکھیں۔ موزوں و مناسب مقدار میں غذا لیں۔ چکنائی سے بھرپور غذاؤں اور میٹھے سے پرہیز کریں۔

☆ ورزش و کھیل کود جاری رکھیں۔ ورزش سے ذیابیطس کا کنٹرول اچھا رہتا ہے۔ انسولین مؤثر طریقہ سے کام کرتی ہے۔

ادویات:

ذیابیطس قسم اول میں مبتلا تمام افراد اور ذیابیطس قسم دوم میں مبتلا وہ افراد جو انسولین لگا رہے ہیں باقاعدگی سے لگائیں۔

ذیابیطس قسم دوم میں مبتلا افراد کی ذیابیطس اگر بذریعہ دہن ادویات سے شوگر کنٹرول میں نہ آئے تو فوراً انسولین شروع کردیں۔

اگر خون میں گلوکوز کا کنٹرول عمدہ رہے تو پیچیدگیوں سے محفوظ رہ سکتے ہیں یا شدت میں کمی آسکتی ہے جو کہ مختلف تحقیقات سے ثابت ہے۔

☆ 76 فیصد تک آنکھوں کی پیچیدگی سے محفوظ رہ سکتے ہیں۔

☆ 50 فیصد تک عارضہ گردہ سے بچ سکتے ہیں۔

☆ 60 فیصد تک اعصابی تکالیف سے

☆ 33 فیصد تک فالج سے

☆ 33 فیصد تک قبل از وقت اموات میں کمی واقع ہوسکتی ہے۔

بینائی کو محفوظ کیجئے

ڈاکٹر وکیل عابدی
میڈیکل آفیسر
ڈایابیٹک ایسوسی ایشن آف پاکستان

اکثر ایسا ہوتا ہے کہ ابتدائی مرحلہ میں بغیر بینائی کے متاثر ہوئے آنکھوں کی پیچیدگیاں ہوجاتی ہیں۔ جب تک پیچیدگی شدت اختیار نہ کرلے بینائی متاثر نہیں ہوتی۔

لہٰذا آپ کو چاہیے کہ مندرجہ ذیل باتوں کا خیال رکھیں۔

کیا آپ اپنی آنکھوں کا معائنہ باقاعدگی سے کرواتے ہیں؟

ذیابیطس میں مبتلا ہر فرد کو ذیابیطس کے مرض کی تشخیص کے وقت اور پھر سال میں ایک دفعہ اپنی آنکھوں کا معائنہ بالخصوص آنکھوں کے پردے کا معائنہ ضرور کروانا چاہیے۔ آنکھوں کے معائنہ کے بعد ہی آپ کا معالج بتائیگا کہ آپ کو کتنی جلدی دوبارہ آنا ہے۔ آنکھوں کے معائنہ میں مندرجہ ذیل امور کو دیکھا جاتا ہے۔

بینائی کو دیکھنا یعنی قریب اور دور کی نظر کا معائنہ ہوتا ہے۔ آنکھوں کے چارٹ اور آپ کے بیٹھنے کی جگہ کا فاصلہ 6 میٹر ہونا چاہیے۔ آنکھوں پر مختلف نمبر کے عدسہ رکھ کر معائنہ ہوتا ہے اور جس نمبر پر آپ کو صاف نظر آئے وہی آپ کے چشمہ کا نمبر ہوتا ہے۔

آفتھیلما اسکوپ کے ذریعہ آنکھوں کے پردے کا معائنہ ہوتا ہے۔ آنکھوں کے پردے کا تفصیلی معائنہ کرنے کے لئے آنکھوں کی پتلی کو پھیلا کر جانچ ہوتی ہے جس کے لئے آنکھوں میں پتلی پھیلانے والے قطرے ڈالے جاتے ہیں پھر ماہر امراض چشم پردہ پر پڑنے والے اثرات کو بغور دیکھتا ہے۔

سلٹ لیمپ کے ذریعہ معائنہ:

اسکے ذریعہ آنکھوں کا سامنے والا حصہ جانچا جاتا ہے جس میں آئی لڈ (آنکھوں کی کھڑکی)، پتلی، عدسہ اور آنکھوں کے سامنے والی جھلی (کورنیا) کا معائنہ کیا جاتا ہے۔ اس معائنہ کیلئے بائی مائکر اسکوپ آلہ استعمال ہوتا

آگے سے پیچھے تک پاخانہ کے مقام تک پورا حصہ دھولیں۔

☆ جوخواتین حاملہ نہ ہونے کے لئے ڈایا فرم یا کریم جس سے سپرم مرجاتے ہیں استعمال کرتی ہیں انھیں یوٹی آئی ہونے کے امکانات زیادہ ہوتے ہیں لہٰذا ڈاکٹر سے مشورہ کرلیں۔

☆ ذیابیطس کنٹرول کرنے کے لئے SGLT-2 انہبٹرز گولیاں استعمال کریں تو پانی زیادہ پئیں اور جنھیں بار بار یوٹی آئی ہورہا ہوتو یہ دوا نہ کھائیں۔ دوا ڈاکٹر کی ہدایات کے مطابق لیں۔

ضرور اس مرض میں مبتلا ہوتی ہیں اگر آپ خاتون ہیں اور ذیابیطس قسم دوم میں مبتلا تو آپکو نظام یول کے انفیکشن ہونے کے خطرات بڑھ جاتے ہیں جو کہ مختلف تحقیقات سے ثابت ہیں۔

ذیابیطس میں مبتلا افراد میں انفیکشن ہونے کی وجوہات میں دوران خون کے نظام کا متاثر ہونا ہے یعنی خون کی سیرابی کم ہوجاتی ہے جسکی وجہ سے جسم میں موجود انفیکشنز کا مقابلہ کرنے کے لئے خون کے سفید جرثومہ کی تعداد میں کمی واقع ہوجاتی ہے لہٰذا جراثیم حاوی ہوجاتے ہیں اور مدافعت میں کمی۔ اسکے علاوہ خون میں گلوکوز کی بلند مقدار کی وجہ سے بھی انفیکشن لاحق ہونے کے امکانات بڑھ جاتے ہیں۔ ذیابیطس میں مبتلا کچھ افراد میں مثانہ پورا خالی نہیں ہوتا اور پیشاب کی کچھ مقدار مثانہ میں بہت دیر تک پڑی رہتی ہے اور جراثیم کے لئے عمدہ پرورش گاہ ثابت ہوتی ہے۔

یو۔ٹی۔آئی (UTI) میں مندرجہ ذیل علامات ہوتی ہیں:

☆ پیشاب کرتے وقت جلن یا درد

☆ ہر وقت محسوس ہونا کے پیشاب آرہا ہے لیکن آتا نہیں یا چند قطرے آتے ہیں۔

☆ پیشاب میں شدید بدبو ہونا

☆ پیشاب گاڑھا، سیاہ یا خون کی آمیزش والا ہوتا ہے۔

☆ بخار یا سر درد

☆ کمر کے اطراف یا پیٹ میں درد ہونا۔

مندرجہ بالا علامات کی موجودگی میں نظام یول کے انفیکشن کی تشخیص کے لئے پیشاب کا ٹسٹ کروانا پڑتا ہے۔ پیشاب کے Culture و Sensitivity ٹیسٹ کی بھی ضرورت پڑتی ہے تاکہ پتہ چل سکے کہ جراثیم کونسا ہے اور کونسی ادویات اثر کریں گی۔ دیگر ٹسٹس میں الٹراساؤنڈ، CT Scan, MRI بالخصوص جب انفیکشن مستقل موجود رہے یا بار بار ہورہا ہو۔

علاج:

اگر پیشاب کے ٹسٹس سے پتہ چل جائے کہ جراثیم موجود ہیں تو فوراً اینٹی بایوٹک ادویات تین دن کے لئے شروع کروادیں لیکن اگر انفیکشن خطرناک ہے تو زیادہ دن کے لئے لینا چاہیے۔ اگر توجہ نہ دی جائے اور فوری علاج نہ ہو تو گردہ متاثر ہونے کے امکانات بڑھ جاتے ہیں۔ کچھ ادویات بغیر ڈاکٹری نسخہ کے بھی مل جاتی ہیں لیکن بہتر ہے کہ ڈاکٹر سے مشورہ کرکے لیں۔

بچاؤ:

ذیابیطس کی وجہ سے یوٹی آئی ہونے کے خطرات بڑھ جاتے ہیں لیکن اگر مندرجہ ذیل اقدامات بروئے کار لائے جائیں تو اس سے بچا جاسکتا ہے۔

☆ ذیابیطس کا کنٹرول عمدہ رکھیں۔

☆ پانی زیادہ پئیں۔

☆ کرین بیری ساشے (Cranberry) پانی میں حل کر کے استعمال کریں۔ کرین بیری جراثیم کو مثانہ کی دیواروں سے چپکنے سے روکتی ہے۔

☆ دہی کا استعمال کریں۔ اس میں Probiotics (صحت بخش بیکٹیریا) ہوتے ہیں یا اپنے ڈاکٹر سے مشورہ کرکے Lactobacillus reuteri پر مشتمل Supplement لے لیں۔

☆ زیر جامہ (Underwear) سوتی پہنیں۔

☆ مباشرت کے بعد فوراً پیشاب کرلیں تاکہ جراثیم نکل جائیں۔

☆ پیشاب محسوس ہوتے ہی فوراً کرلیں۔ روکیں نہیں۔

☆ جب پیشاب اور رفع حاجت کرلیں تو

ذیابیطس اور نظام بول کا انفیکشن

(Diabetes and Urinary Tract Infections)

ڈاکٹر وکیل عابدی
میڈیکل آفیسر
ڈایابیٹک ایسوسی ایشن آف پاکستان

پیشاب کرتے وقت جلن (Burning)، پیشاب کی بار بار حاجت پیٹ یا کمر کے اطراف درد کی شکایات عموماً نظام بول کے انفیکشن UTI (یوٹی آئی) کی علامات ہیں۔ ذیابیطس میں مبتلا افراد عام افراد کے مقابلہ میں زیادہ متاثر ہوتے ہیں ان میں خواتین کی تعداد زیادہ ہے۔ اگر انفیکشن کا علاج بروقت نہ کیا جائے تو حالات خطرناک بھی ہوسکتے ہیں۔ اگر ذیابیطس کنٹرول میں نہ ہو تو انفیکشن جلدی ٹھیک نہیں ہوتا اور بار بار ہوتا رہتا ہے لہٰذا انفیکشن کے علاج کے ساتھ ذیابیطس کا کنٹرول بھی عمدہ رہنا چاہیے۔

نظام بول کا انفیکشن (UTI) گردے، مثانہ، گردہ سے مثانے تک پیشاب کی نالی (Ureter) اور مثانہ سے پیشاب کے اخراج کی نالی (Urethra) اور مرد حضرات میں پراسٹیٹ غدود میں ہوسکتا ہے۔ زیادہ تر انفیکشن مثانہ کا ہوتا ہے، جہاں پیشاب جمع ہوتا ہے۔

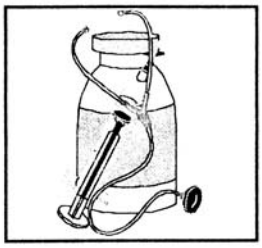
UTI بیکٹیریا سے ہوتا ہے جو کہ عموماً بڑی آنتوں کے آخری حصہ سے آتا ہے۔ نظام بول کا فعال ہونا انفیکشن سے بچاتا ہے مثلاً گردہ سے مثانہ تک پیشاب لے جانے والی نالی (Ureters) یک طرفہ ہوتی ہے یعنی پیشاب واپس گردہ میں نہیں آتا بلکہ مثانہ میں ہی رہتا ہے اسکے علاوہ جب مثانہ سے پیشاب خارج ہوتا ہے تو اپنے ساتھ بیکٹیریا اور دوسرے جراثیم بھی خارج کردیتا ہے۔ اور اگر مدافعتی نظام مؤثر اور صحتمند ہو تو بھی انفیکشن سے بچاؤ ہوجاتا ہے۔

مختلف انفیکشنز میں نظام بول کا انفیکشن دوسرے نمبر پر عام ہے۔ خواتین مردوں کے مقابلہ میں 10 گنا زیادہ متاثر ہوتی ہیں جسکی بڑی وجہ نظام بول کی تخلیقی وجہ ہے۔ خواتین کی پچاس فیصد سے زیادہ تعداد اپنے دور حیات میں

ذیابیطس میں مبتلا افراد میں آنکھوں کی حفاظت کیسے کی جائے؟

- ☆ خون میں گلوکوز کی مقدار نارمل رکھیں۔
- ☆ بلڈ پریشر کنٹرول میں رکھیں۔
- ☆ سگریٹ نوشی سے احتراز کریں۔
- ☆ مستقل لمبے عرصہ تک ٹی وی نہ دیکھیں اس سے آنکھوں پر زور پڑتا ہے۔
- ☆ لمبے عرصہ کے لئے تیز دھوپ سے بچیں۔
- ☆ ہر سال آنکھوں کا معائنہ ماہر امراض چشم سے ضرور کروائیں۔

پیارے بچو!



ذیابیطس کے دوستو

گزشتہ سالوں کے مقابلہ میں اس دفعہ سردی کچھ زیادہ ہی پڑی ہے۔ آپ لوگ یقیناً اس موسم سے ضرور لطف اندوز ہوئے ہونگے اور مجھے یقین ہے کہ سردی آپکے کھیل کود اور ورزش میں رکاوٹ نہیں بنی ہوگی۔ جیسا کہ آپ کو علم ہے کہ ورزش اور کھیل کود اچھی صحت برقرار رکھنے کے لئے بہت ضروری ہیں۔ اس سے نہ صرف ذیابیطس کنٹرول میں رہتی ہے بلکہ چستی وتوانائی بھی محسوس ہوتی ہے۔

ورزش سے وزن بھی نہیں بڑھتا بلکہ زائد وزن میں کمی آتی ہے۔ زیادہ کھانے اور کاہلی وسستی سے وزن میں اضافہ ہوتا ہے۔ موٹے بچے نہ تو اچھے نظر آتے ہیں اور نہ ہی وہ کھیل کود میں حصہ لے سکتے ہیں۔ اپنی غذا میں سبزیاں اور پھل ضرور شامل کریں۔ عموماً یہ دیکھا گیا ہے کہ بچے سبزیاں شوق سے نہیں کھاتے جبکہ سبزیاں ریشہ اور حیاتین سے بھرپور ہوتی ہیں۔ یاد رکھیئے صحت بخش متوازن غذا اور ورزش اچھی صحت کے لئے بہت ضروری ہیں۔

آپ متوازن ومناسب غذا، ورزش اور کھیل کود سے ضرور لطف اندوز ہوں۔

نیک تمناؤں کے ساتھ

آپکا انکل

فربہ (موٹے) بچوں کے لئے ہدایات

☆ کھانا باقاعدگی سے وقت پر کھائیں جس میں سبزیاں اور پھل ضرور شامل ہوں۔

☆ گھی یا تیل کا استعمال انتہائی کم مقدار میں ہو۔ مرغن غذاؤں اور برگر سے پرہیز کریں۔

☆ ٹیلیویژن دیکھنے کے دوران کھانا نہ کھائیں۔

☆ باقاعدگی سے ورزش کریں۔ کھیل کود میں ضرور حصہ لیں۔ تیراکی، جاگنگ اور سائیکل چلانا بہترین ورزش ہے۔

☆ خودکار (برقی) سیڑھیوں یا لفٹ کے بجائے سیڑھیاں چڑھ کر جائیں۔

☆ ٹی وی دیکھنے یا کمپیوٹر کو زیادہ وقت نہ دیں۔

☆ اپنا وزن کنٹرول میں رکھیں۔

☆ وزن کم کرنے پر اپنے آپ کو شاباشی دیں۔

فربہی یا مٹاپہ کو قابل تشویش اور خطرہ سمجھیں۔

اداریہ

ذیابیطس میں مبتلا افراد کو تشخیص کے وقت یہ آگہی دلائی جاتی ہے کہ ذیابیطس کا مرض صرف کنٹرول ہوتا ہے جڑ سے خاتمہ فی الحال ممکن نہیں۔ علاج کا مقصد یہ ہوتا ہے کہ ذیابیطس کو کنٹرول میں رکھ کر ممکنہ پیچیدگیوں سے محفوظ رہیں۔ ویسے تو ذیابیطس جسم کے ہر حصہ کو متاثر کرتی ہے لیکن خاص پیچیدگیوں میں عارضہ گردہ، عارضہ رگ وقلب، فالج، پیروں کا ناسور اور امراض چشم شامل ہیں۔

ذیابیطس کی ایک اہم پیچیدگی آنکھوں کا عارضہ ہے جس میں آنکھ کے پردے متاثر ہوتے ہیں جسے ڈایابیٹک ریٹینوپیتھی کہتے ہیں اور اگر پردے شدید متاثر ہوجائیں اور بروقت علاج نہ ہو تو بینائی زائل ہونے کے امکانات بڑھ جاتے ہیں۔ ذیابیطس میں مبتلا 80 فیصد افراد کو بیس سال کے عرصہ پر محیط ذیابیطس کے اثرات کا آنکھوں کو کم شدت کی نوعیت سے لیکر شدید نوعیت کا سامنا کرنا پڑتا ہے جس میں نابیناپن بھی شامل ہے۔ 90 فیصد افراد کی بینائی کو محفوظ کرسکتے ہیں بشرطیکہ ذیابیطس کا عمدہ کنٹرول رکھا جائے اور ممکنہ پیچیدگی کی نشاندہی بروقت کرلی جائے۔ اسی وجہ سے ذیابیطس کی تشخیص ہوتے ہی پردوں کا معائنہ کرایا جاتا ہے اور پھر ہر سال، تاکہ معمولی نوعیت کی تکلیف کو تشخیص کرکے بروقت علاج کرالیا جائے۔ یہ بات مختلف تحقیقات سے ثابت ہے کہ 20 سال سے 54 سال کی عمر کے افراد میں نابیناپن کی ایک بڑی وجہ ذیابیطس کا مرض ہے۔

اس وقت ذیابیطس میں مبتلا ہر تین فرد میں سے ایک کو ڈایابیٹک ریٹینوپیتھی ہے۔ جتنا ذیابیطس کا عرصہ بڑھتا چلا جاتا ہے اتنا ہی خطرات میں اضافہ ہوتا چلا جاتا ہے۔ لہٰذا ضروری ہے کہ ذیابیطس میں مبتلا افراد کو ذیابیطس کا کنٹرول اچھا رکھنا چاہیے۔ آنکھوں کے پردے کا معائنہ باقاعدگی سے کروانا چاہیے۔ اگر فشار خون زیادہ ہے تو اسے کنٹرول میں رکھنا چاہیے۔ تمباکو نوشی سے اجتناب ضروری ہے۔ ذیابیطس کے بارے میں زیادہ سے زیادہ آگاہی حاصل کریں۔

ڈایابیٹک ایسوسی ایشن آف پاکستان

(قائم کردہ ۱۹۶۶ء)

اِنٹرنیشنل ڈایا بیٹس فیڈریشن برسلز، بلجیئم سے الحاق شدہ

ڈایابیٹک ایسوسی ایشن آف پاکستان میں، ذیابیطس کے مریضوں کی دیکھ بھال کیلئے آٹھ ماہر ڈاکٹروں، دو ڈائیٹشن، ایک ڈایابیٹک ایجوکیٹر، بائیوکیمسٹ اور ماہر لیبارٹری ٹیکنیشنز کی خدمات حاصل کی گئی ہیں۔ نیز ایسوسی ایشن میں ضروری ساز وسامان سے لیس لیبارٹری بھی موجود ہے۔

مریضوں کیلئے سہولتیں

- ذیابیطس کے بارے میں مکمل مشورہ اور معلومات۔
- مکمل طبّی معائنہ اور تشخیص
- جدید آلات سے لیس لیبارٹری میں خون و پیشاب کے ٹیسٹ اور خون کے دیگر تمام ٹیسٹ
- ای سی جی (ECG) کی سہولت
- ذیابیطس کی وجہ سے پیدا ہونے والے زخموں کی دیکھ بھال اور مرہم پٹی۔
- پاؤں کی نگہداشت کا کلینک
- مستحق مریضوں میں دواؤں کی مُفت فراہمی اور مُفت خون و پیشاب ٹیسٹ
- ذیابیطس سے متعلق آنکھوں کا ہسپتال و کلینک

ڈایابیٹک ایسوسی ایشن آف پاکستان
مستقبل و منصوبے

- ذیابیطس کے مریضوں کیلئے ہسپتال کا قیام۔
- لیبارٹری میں توسیع
- ریسرچ و تحقیق میں توسیع

ڈایابیٹس ڈائجسٹ

فروری ۲۰۱۹ء

مدیر اعلیٰ : پروفیسر اے صمد شیرا

مدیر : ڈاکٹر سیّد وکیل حُسین عابدی

تفصیلات: ڈایابیٹک ایسوسی ایشن آف پاکستان

۵۔ای/۳، ناظم آباد۔کراچی ۷۴۶۰۰

فون : ۹۲۔۲۱، ۳۶۶۸۰۹۵۹، ۳۶۶۱۶۸۹۰

فیکس : ۹۲۔۲۱، ۳۶۶۸۰۹۵۹

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