

Glaucoma often undetected and misunderstood

STAR HEALTH DESK

For years, glaucoma, the leading cause of irreversible blindness worldwide, has been considered when there was elevated pressure within the eye which leads to sudden loss of vision. Glaucoma is still checked by seeing only the pressure of the eye in many cases of routine screening. But experts knew there were glaring gaps in the definition of glaucoma.

Researchers still recognise high pressure within the eye as a leading risk factor for glaucoma. And ophthalmologists still use the familiar screening test that measures pressure and screen for the disease. But since about 30 percent of people with the disease have normal or low pressure and there is obviously something else at work.

Intraocular pressure (IOP) in the eye is called another term ocular hypertension which is considered normal with no detectable changes in vision or damage to the structure of your eyes. People suffering from acute nearsightedness are observed to develop this condition and people suffering from diabetes are relatively more prone to develop ocular hypertension.

Glaucoma is characterised by a particular pattern of progressive damage to the optic nerve that generally begins with a subtle loss of side vision (peripheral vision). If glaucoma is not diagnosed and treated, it can progress to loss of central vision and blindness.

Many people with abnormally high intraocular pressure never develop glaucoma. As many as one in three people who do get the disease have normal or even low pressure. As researchers have tried to resolve those contradictions, a new paradigm for understanding glaucoma has emerged.

Even the official definition

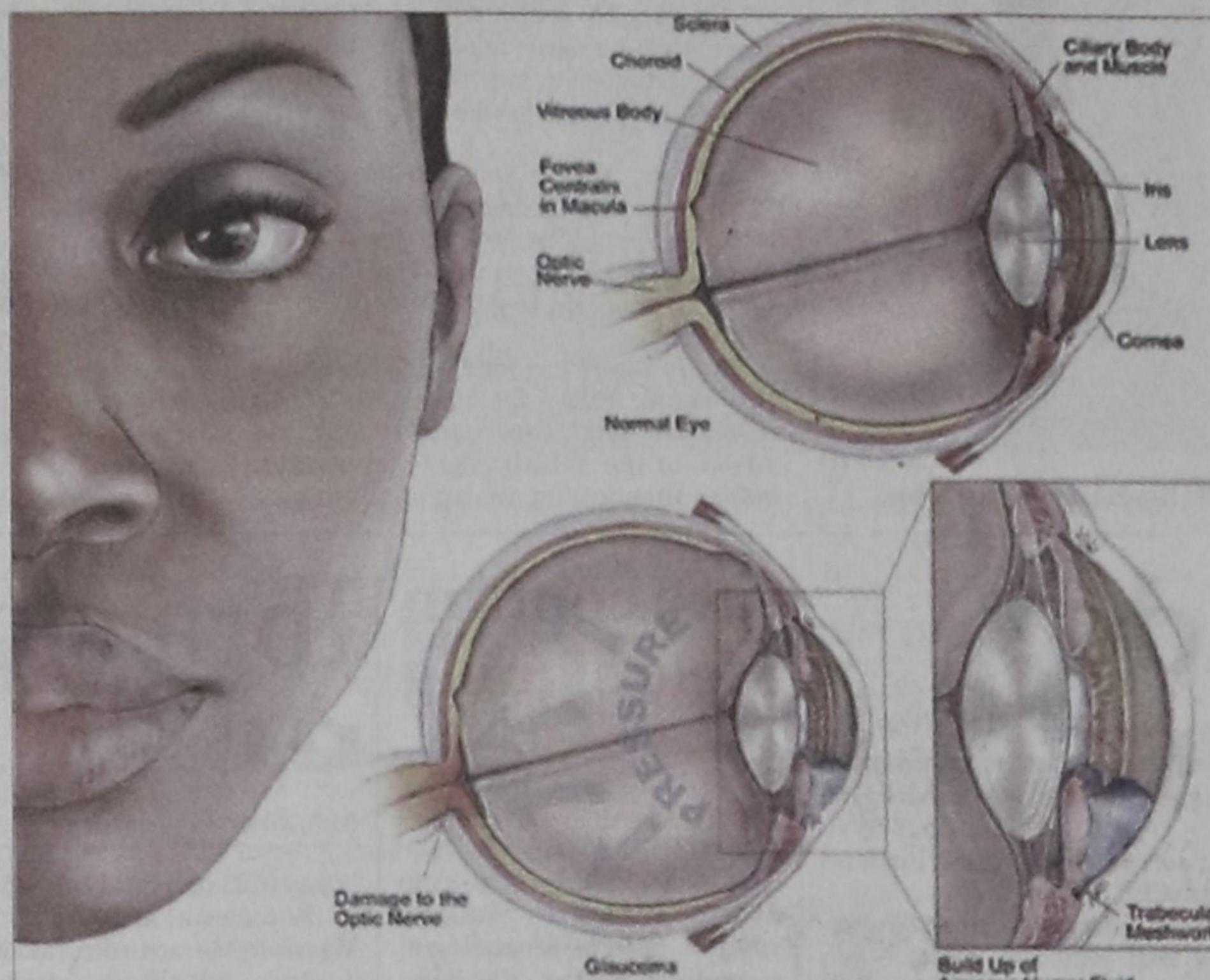
of glaucoma, a disease that accounts for more than eight million cases of blindness worldwide, has changed. Today, diagnosis is based on just two features: visible damage to the optic nerve, which leads from the retina at the back of the eye to the brain, and loss of peripheral vision, which can be measured by a simple test in an eye doctor's office.

Glaucoma is not simply an eye disease, experts now say, but rather a degenerative nerve disorder, not unlike Alzheimer's or Parkinson's disease. Glaucoma is a disease of the major nerve of vision, called the optic nerve. The optic nerve receives light from the retina and transmits the impulses to the brain that we perceive as vision.

Glaucoma is characterised by a particular pattern of progressive damage to the optic nerve that generally begins with a subtle loss of side vision (peripheral vision). If glaucoma is not diagnosed and treated, it can progress to loss of central vision and blindness.

Elevated IOP can also occur due to inadequate drainage or excessive aqueous fluid production. Steroids and other similar medications can increase the IOP levels. Trauma has also shown tendencies to lead to a lofty IOP level.

"Glaucoma is often called 'silent thief of sight' because



most types typically cause no pain and produce no symptoms. For this reason, glaucoma often progresses undetected until the optic nerve already has been irreversibly damaged, with varying degrees of permanent vision loss. This is a major hurdle in getting patients who know they have glaucoma to take their medicine before irreversible vision loss occurs.

In very few types like acute angle-closure glaucoma, symptoms that occur suddenly can include blurred

vision, halos around lights, intense eye pain, nausea and vomiting. "If you have these symptoms, make sure you see an ophthalmologist immediately so that steps can be taken to prevent permanent vision loss," said Dr Khair Ahmed Choudhury, Assistant Professor of Ophthalmology of Sylhet MAG Osmani Medical College.

Diagnosis should be based on examining the optic nerve, field of vision rather than elevated IOP. Routine screening eye examinations

are mandatory since glaucoma usually causes no symptoms in its early stages. Once damage to the optic nerve has occurred, it can not be reversed. Thus, in order to preserve vision, glaucoma must be diagnosed early and followed up regularly.

Individuals of 40-60 years of age should have an eye examination every two to four years and at 65 or over it individuals should have an eye examination every one to two years. People who are at risk should check their eye more frequently at 6 months interval.

For now, the only treatments available for glaucoma work by lowering pressure in the eye, either by decreasing the production of fluid or increasing its outflow. Even in patients with normal intraocular pressure and early signs of the disease, lowering pressure has been shown to significantly slow the progression of nerve damage. Most anti-glaucoma drugs are delivered as eye drops, which may need to be used once or several times a day. When drops are not enough, laser treatments and surgery can be used to allow excess fluid to flow out of the eyes.

Despite effective treatments, many people suffer some preventable loss of peripheral vision. One problem is that the disease too often goes undetected. Maximum people with glaucoma are not aware that their vision is at risk because they have not been tested, surveys suggest.

The longer the disease goes untreated, the greater the chance of loss of vision.

Worldwide, an estimated 60 million people have glaucoma, and that number is expected to reach 80 million by 2020. While scientists search for better treatments for glaucoma, the second-leading cause of blindness, people can take action to give themselves the best chance: get a regular glaucoma screening exam, and if glaucoma is diagnosed, take the treatment regimen seriously. Because your sight depends on it.

Hannah Clark poses with her parents, Elizabeth and Paul, after a news conference in London

UK girl recovers fully after donor heart removed

REUTERS, London

ration of the function of the heart muscle, was relatively common in children in the first year of their life.

Victor Tsang from Great Ormond Street Hospital, who was the other surgery team leader, said Clarke's case offered hope for other patients with heart failure.

Hannah Clark, now 16, had a "piggyback" transplant operation in 1995 aged two, when a new heart was inserted in parallel to her own failing one.

The donor organ had to be removed 3 1/2 years ago because the immunosuppressant drugs she was taking to avoid organ rejection caused cancer — but by then her own heart had recovered sufficiently to work on its own.

Since the surgery, which took place in 2006, Clark has made a full recovery from the cancer and has a normal cardiac function, her doctors said recently.

"Now we are a lot more confident (about this procedure)," said Magdi Yacoub from Imperial College London, who co-led the surgery team.

"The heart muscle itself, which was not doing anything at all, has recovered."

He added cardiomyopathy, or the deterio-



REUTERS/ANDREW WINNING

Handwashing stops the spread of germs.

Did You Wash Them?

Handwashing with soap before eating and after using the toilet could save more lives than a single vaccine or medical intervention, cutting deaths from diarrhoea by almost half and deaths from acute respiratory infections by one quarter.

Hands are the principal carriers of disease-causing germs, and handwashing with soap could avert one million of those deaths.

Studies estimate that handwashing with soap could reduce diarrhoeal disease by 42-46% — saving over one million lives a year — and reduce the risk of respiratory infections by 30-35%, making it one of the world's most cost-effective health interventions.

Every year, more than 3.5 million children don't live to celebrate their fifth birthday because of diarrhoea and pneumonia.

The reduction in diarrhoea by meeting the sanitation MDG target would add almost 200 million days of school attendance per year.

Diarrhoea is responsible for the loss of hundreds of millions of school and work days across the globe every year; handwashing with soap at critical moments — such as before eating and after using the toilet — can reduce this by nearly a half.

Soap is almost universally present in households but its actual use for handwashing is considerably lower.



Knowing autism, making resource!

MD ZAHIR UDDIN AKANDA

The term autism or Pervasive Developmental Disorders (PDD) is a chronic developmental disability with combination of sensory-motor and behavioural characteristics along with cognitive disabilities. It is a severely handicapped group of disorders characterised by delays in the development of basic functions including socialisation and communication. It begins at birth or within the first 2 1/2 years of life. It is 2 to 4 times more common in boys than girls.

There are five main features that make sure the diagnosis of autism. These include disturbance in relation of person and object, disturbance in com-

munication, disturbance in sensory processing, disturbance in functional motility, and disturbance in normal development of a child.

No drug or other treatment can "cure" autism, but early and intensive treat-

ment and behavioural modification.

Although it is not curable but appropriate early educational intervention, sensory integration, family support and in some cases medication help the children with PDD to live more normal life by improving sensory processing skills, social development and reduce undesirable behaviors.

The writer is a child development & child disability management specialist and occupational therapist. Email: zuakanda@gmail.com

ment of abnormal sensation, behavioural and communication difficulties have been shown to lead to significant improvement. Here occupational therapists can play significant role in autism management. Occupa-

tional therapist uses various treatment approaches like Sensory Integration, neurodevelopmental, occupational role and functioning sensory diet (variety of activity and adaptations) and behavioural modification.

Although it is not curable but appropriate early educational intervention, sensory integration, family support and in some cases medication help the children with PDD to live more normal life by improving sensory processing skills, social development and reduce undesirable behaviors.

Theoretically, in order to maintain weight loss if you do lose weight, you need to continue the programme. But a low-carb diet does not appear to be easier to maintain than any other diet.

Studies comparing low-carb diets and low-fat diets found that after a year, people dropped out of both diets at similar rates. This suggests that the low-carb diet, like so many diets, is not easier to stick to long term.

1. Loss of water weight. When you initially decrease your carbohydrate intake, your body burns glycogen. Glycogen contains large amounts of water, so burning glycogen leads to the release of water and increased urination, causing weight loss.

2. Decreased appetite. Studies suggest that a low-carb diet decreases appetite.

3. Increased feeling of fullness. Low-carb diets are higher in fat and protein. Fat and protein take longer to digest, which makes you feel fuller longer.

4. Reduced calories. Most low-carb diets reduce your overall calorie intake because they strictly limit the variety of foods you can eat. Carbohydrates — including bread, pasta, rice, cereals, milk, most fruit and any sweets

usually provide over half of people's daily calories. On a low-carb diet, however, carbohydrates are limited or avoided, thus leading to a significant reduction in calorie intake.

Theoretically, in order to maintain weight loss if you do lose weight, you need to continue the programme. But a low-carb diet does not appear to be easier to maintain than any other diet.

Studies comparing low-carb diets and low-fat diets found that after a year, people dropped out of both diets at similar rates. This suggests that the low-carb diet, like so many diets, is not easier to stick to long term.

Risks No one knows the long-term health effects of low-carb diets. Though some studies have looked at the benefits and risks, none has been conducted over a long enough period to show whether these diets increase the risk of health conditions that develop over many years, such as heart disease, cancer, and kidney or bone problems.

What you need to know about low-carb diets

STAR HEALTH DESK

Low-carb diets limit carbohydrates — for example, bread, grains, rice, starchy vegetables and fruit — and emphasise sources of protein and fat. Many types of low-carb diets exist, each with varying restrictions on the types and amounts of carbohydrates.

Purpose Low-carb diets are generally used to lose weight. You might choose this type of diet because you enjoy the types and amounts of food featured in the diet.

Diet details

Premise: Carbohydrates raise blood sugar levels, which then kicks in insulin. The theory behind low-carb diets is that insulin drives blood sugar into the cells and prevents fat breakdown in the body. This means you will not burn excess fat and lose weight.

Proponents of low-carb diets take this one step further. They say that if carbohydrates raise blood sugar and insulin levels and cause weight gain, a decrease in

carbs will result in lower blood sugar and insulin levels, leading to weight loss. And because you are not eating the carbs, your body breaks down fat to provide needed energy. Some people do lose weight on low-carb diets, but the weight loss probably is not related to blood sugar and insulin levels.

Typical menu: In general, low-carb diets focus on meat, poultry, fish, dairy products, eggs and some non-starchy vegetables. The diet excludes or limits most grains, beans, fruits, breads, sweets, pastas and starchy vegetables. Some low-carb diet plans allow fruits, vegetables and whole grains.

Results Initially, when you follow a low-carb diet you may lose more weight than if you followed a low-fat, low-carb diet. This increased weight loss may or may not continue long term depending on your commitment to following the eating plan.

A low-carb diet may provide some health benefits, such as possibly lowering blood cholesterol levels, and

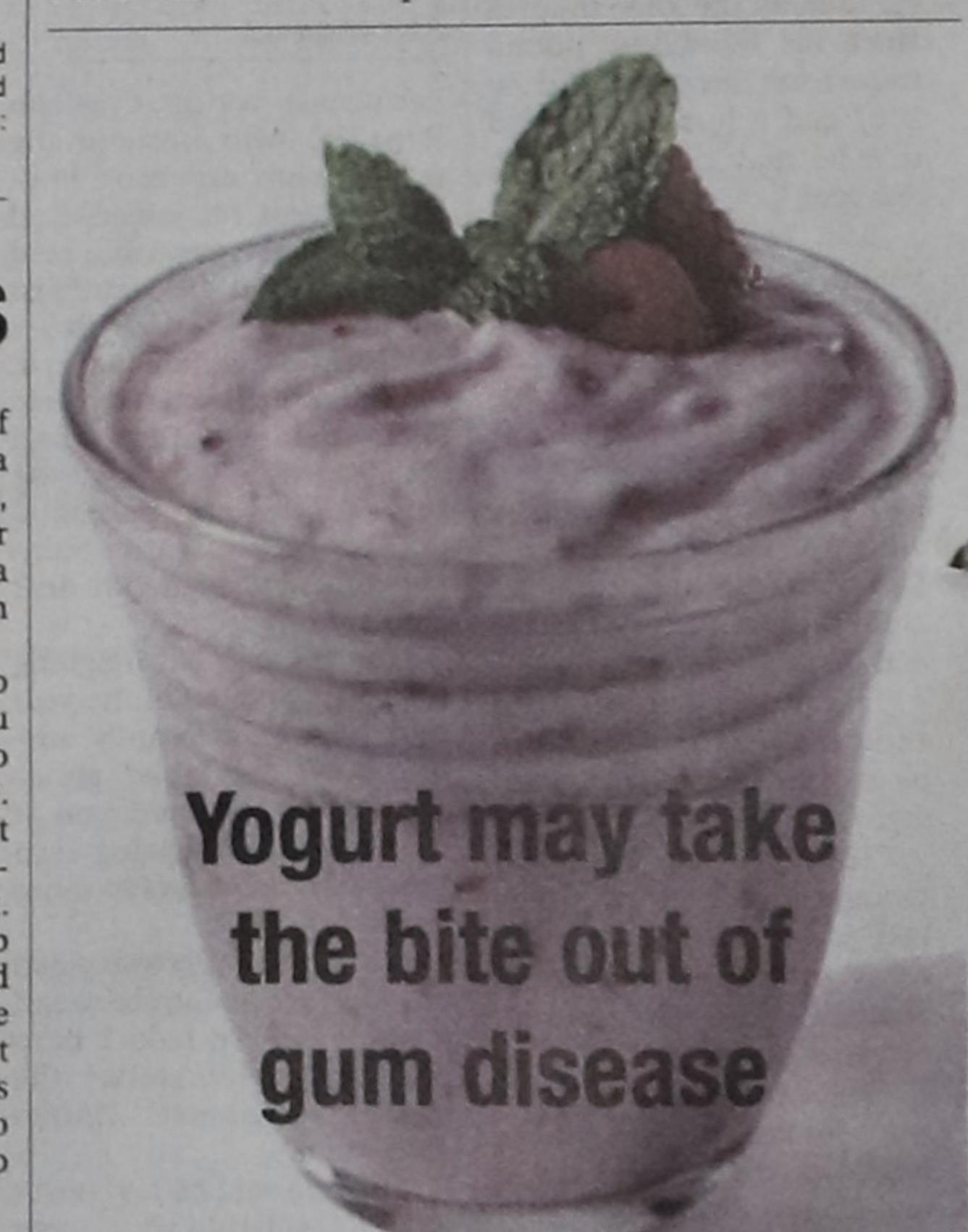
Diabetes itself doesn't up risk of depression

Although people with diabetes have a higher risk of being diagnosed with depression than other people, a large new study has found that much of that increase can be accounted for by their more frequent contacts with the medical system, rather than the diabetes itself.

"Our results are consistent with the hypothesis that having a diagnosed chronic condition increases the frequency of a depression diagnosis," write Dr. Patrick J. O'Connor of Health Partners Research Foundation in Bloomington, Minnesota, and his colleagues. "Our data suggest, however, that patients with diabetes are no more affected by this susceptibility than patients with other chronic conditions who have frequent

outpatient visits." Previous research had suggested a higher likelihood of being depressed among diabetic individuals, O'Connor and his team write in their report, while other studies have had mixed results. One analysis of 42 studies found that people with diabetes were twice as likely to have depression than non-diabetics, they point out in the *Annals of Family Medicine*.

But few studies of the issue have accounted for the number of primary care visits that patients make, O'Connor and his team add, which could influence both whether or not a person had diabetes and whether they were diagnosed and treated for depression.

Source: *Annals of Family Medicine*

Yogurt may take the bite out of gum disease

Regularly eating yogurt and other foods with lactic acid may be good for mouth, Japanese researchers report on *Journal of Periodontology*. They found that consuming yogurt and lactic acid drinks was significantly associated with better periodontal health, whereas milk and cheese were not. Periodontal disease is a chronic bacterial condition associated with receding gums and tooth loss in adults. Outside of regular brushing and flossing, effective measures to allay this disease are limited.