

# How to tackle and treat sleep disturbance

DR MANILAL AICH LITU

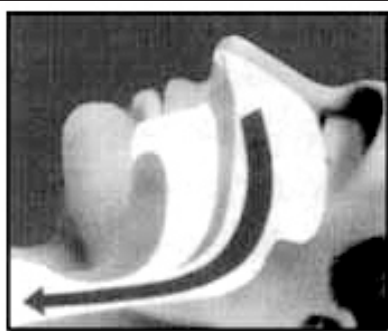
Sleep is vital to our health and well being. Many of us do not get enough sleep or suffer from lots of sleep disorders. Most people have trouble at some point of their lives. Stress, so much caffeine, and even some types of food can prevent a good night's sleep. Sometimes the cause is more serious. There are many types of sleep disorders. The most common one is obstructive sleep apnea (OSA).

## What is sleep apnea?

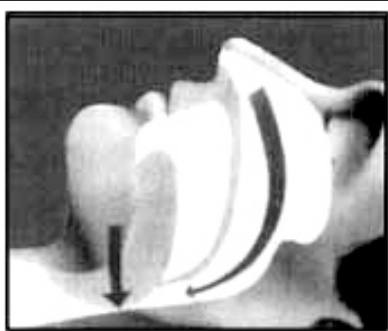
Sleep apnea refers to interruption of breathing during sleep. The most common form of sleep apnea is obstructive sleep apnea (OSA). In OSA, the muscles of the soft palate around the base of the tongue and the uvula relax, obstructing the airway. The airway obstruction causes the level of oxygen in the blood to fall leading to a condition, termed hypoxia which ultimately increase the stress on the heart, elevates blood pressure and prevents the patient from entering the restful and restorative stage of sleep. In other words, sleep apnea causes deprivation of quality sleep.

## Aftermath and association with other diseases

People with untreated sleep apnea stop breathing repeatedly during their sleep, sometimes hundreds of times during the night and often for a minute or longer. People with apnea may suffer from early-morning headaches and feel excessively sleepy throughout the day. Hallucinations sometimes occur while the patient is awake, but feeling extremely sleepy. Memory deterioration, personality changes and impotence are common. Rapid weight gain, often approaching obesity frequently occur.



**Normal Breathing**  
• Airway is open  
• Air flows freely to lungs



**Obstructive Sleep Apnea**  
• Airway collapses  
• Blocked air flow

Apnea patients have twice the usual prevalence of hypertension, three times as much heart diseases, and four times as much cerebrovascular diseases. Other potential consequences include stroke, neuropsychiatric problems, cognitive impairment, sexual dysfunction and injury due to accidents.

## Symptoms of sleep apnea

The symptoms of OSA include loud snoring and/or abnormal pattern of snoring with pauses and gaps. Other symptoms include excessive daytime sleepiness, memory changes, depression and irritability. In some patients sleep apnea can contribute to high blood pressure, heart failure, stroke and heart attack.

OSA typically affects middle-age, over-weight men and may affect women in later age. OSA can be aggravated by alcohol, sleeping pills and tranquilizers taken at bedtime.

## Diagnosis

"Sleep laboratories" are now available to monitor different stages of sleep apnea, determine the type (obstructive or central) and severity of sleep apnea, and design treatment.

## Treatment

General measures in treating OSA include losing excessive weight, avoiding alcohol and sedatives, sleeping on one side, and medications to relieve nasal congestion. More specific treatments include CPAP (Continuous Positive Airway Pressure), oral appliance to open the airway, and ENT surgery – UPPP (Uvulo Palato Pharyngo Plasty) where a surgeon removes excessive soft tissue in the back of the throat to relieve obstruction.

CPAP is an effective treatment for sleep apnea. A mask is worn over the nose during sleep while compressed air is gently forced through the nose to keep in airway open.

If you suspect you may have sleep apnea, the first thing to do is to consult a doctor. Bring with you a record of your sleep, fatigue levels throughout the day, and any other symptoms you might be having. Ask your bed partner if s/he notices that you snore heavily, choke, gasp or stop breathing during sleep.

Second line treatment of sleep apnea is dental appliances, which reposition the lower jaw and tongue, and upper airway surgery to remove tissue in the airway. In general, these approaches are most helpful for mild disease or heavy snoring.

Lifestyle changes are effective ways of mitigation of symptoms of sleep apnea. Here are some tips that may help reduce apnea severity.

- **Lost weight:** If you are overweight, this is the most important action you can take to cure your sleep apnea.
- **Avoid alcohol:** It causes frequent nighttime awakenings, and makes the upper airway breathing muscles relax.
- **Quit smoking:** Cigarette smoking worsens swelling in the upper airway, making apnea (and snoring) worse.
- Some patients with mild sleep apnea or heavy snoring have fewer breathing problems when they are lying on their sides instead of their backs.

## Treatment facilities

Japan-Bangladesh Friendship Hospital has started 'Sleep Disorder Clinic' -- the first of its kind sleep laboratory in our country. They have introduced the monitoring of sleep disorders (Polysomnography) with some highly trained pulmonologists and otorhinolaryngologists.

The writer is a Registrar of ENT & Head-Neck Surgery Department of Sir Salimullah Medical College and Mifflord Hospital.

# Physiotherapy can help epilepsy patients

DR MD SAIFUL ISLAM

Epilepsy is a brain disorder characterised by recurring seizures or fits. Seizures are caused by sudden flurries of electrochemical activity in the brain, which disrupt the 'conversation' between neurons. There are various types of seizures. In many cases, a seizure comes on suddenly without warning, so a person with epilepsy needs to make sure their exercise and sporting activities are as safe as possible at all times.

## Exercise and seizures

Some people with epilepsy avoid exercise because they are afraid of seizure during the activity. However, it is extremely rare for a person to have an epileptic seizure while exercising. Rather than triggering seizures, physical activity can actually reduce the risk. Research has found that most people with epilepsy experience improved electroencephalograph (EEG) readings during and after exercise.

## Exercise safety issues

- You should consult doctor or physiotherapist before starting an exercise plan. General safety suggestions include:
- Always take your medication as prescribed.
  - Ensure you keep an adequate supply of medication.
  - Make sure your sporting companions are aware of your condition, and know what to do if you have a seizure.
  - Always wear a medical alert bracelet.
  - Wear protective gear appropriate to your sport, such as helmet or knee pads.
  - Always wear a life jacket when involved in water sports.
  - Activities such as contact

sports, scuba diving, bungee jumping and boxing are dangerous and should be avoided.

- Avoid solo aerial sports such as hang gliding and skydiving.
- Avoid high altitude activities such as mountain climbing.

## Activities to avoid in case of uncontrolled seizures

In addition to the above, people with uncontrolled seizures need to avoid certain activities altogether, including motor sports, horseback riding, gymnastics, ice activities, such as skating or hockey, skiing, solo water sports, such as sailing or wind surfing etc.

## Water safety

Water safety is particularly crucial, because a person who experiences a seizure while alone in water will almost certainly drown. Suggestions include:

- Be alert to hidden dangers. For example, you are more likely to drown in the bath than in the sea.
- Swim with companions who are aware of your condition, and who are physically strong enough and know what to do if you have a seizure.
- Swim in supervised areas, such as in a public pool with an attendant, or at the beach between the flags where lifeguards are on patrol.
- Tell the pool attendant or lifeguard that you have epilepsy. You may need to brief them on how best to help you, if they don't already know.

## Epilepsy drugs and sporting performance

Anti-epileptic drugs (AEDs) help to manage epilepsy, but some of the side effects can influence your sporting performance, including:

- Some AEDs cause fatigue, vision problems such as blurred vision, or problems with concentration or coordination.

tion or coordination.

- Physical exercise can alter the levels of AEDs in the blood. People taking AEDs who exercise regularly need to be monitored by their doctor.

- Performance-enhancing drugs such as anabolic steroids should be strictly avoided, as they interfere with AED levels in the blood.

## Exercise-related epilepsy triggers

It is important to exercise sensibly. You could trigger a seizure minutes or hours after exercise if you unnecessarily strain your body. Exercise-related risk factors could include extreme fatigue, lack of sleep, dehydration, electrolyte loss (due to severe dehydration), hyperthermia (elevated body temperature), hypoglycaemia (low blood sugar levels).

To avoid exercise-related epilepsy triggers follow the following suggestions:

- Drink plenty of water before, during and after exercise.
- Don't push yourself to the point of physical exhaustion.
- If you are feeling very hot and tired, slow down or stop.
- Make sure you have at least two rest days every week.
- Make sure your diet is nutritionally adequate.
- Get plenty of rest and good quality sleep.
- Take all steps to avoid head injuries.
- Don't abuse alcohol.
- Make sure you take your medication according to your doctor's directions.

The writer is a physiotherapist at Gono Bishwavidyalay, Dhaka.

# Diabetic retinopathy – a preventable silent blinding

STAR HEALTH DESK

Diabetes is an emerging epidemic of this century. It is estimated that more than 200 million people have diabetes. They are at risk of losing sight due to diabetic retinopathy. By the year 2025, there will be 300 million diabetics around the world and around 6 million in Bangladesh.

## Consequences of diabetes

Diabetic retinopathy affects the retina, the light sensitive tissue at the back of the eye that transmits visual messages via the optic nerve to the brain. When this delicate tissue is damaged by diabetic retinopathy, the result may be visual impairment or blindness in many cases.

In general, the progression of retinopathy is orderly, advancing step by step. Diabetic retinopathy --

- Affects all system of the body (and leads the patients towards death and disability)
- Retinopathy (defect in vision linked to diabetes) -- a common complication of diabetes with high potential for vision loss
- Approximately two-thirds with diabetic retinopathy loses vision after after 35 years of diabetes
- Current treatment modalities are

effective in preventing 98 per cent of the vision loss

- Patients' lack of awareness seems to be the main reason behind underutilisation

## A prospective study

To assess the current health behavior of the diabetic population to reduce diabetic retinopathy a survey was performed among the diabetic patients of Jamalpur, Sherpur, Tangail districts and Dhaka City. The title of the study was "A study on knowledge, attitude and practice (KAP) of diabetic patients for reducing the risk of developing diabetic retinopathy".

The objectives of the study were to assess the knowledge and attitude of the diabetic patients to delay the onset of diabetic retinopathy as well as to evaluate and care of the disease.

In view of this a total 750 respondents were selected for the study using simple random sampling technique. Out of 750 respondents, 686 were feasible to be interviewed.

## Result of the study

The respondents were of different age group, sex; from different areas like urban and rural and different professions. Their levels of education, knowledge and

socio-economic condition were also different.

Among sociodemographic variables, age and sex were not found associated with combined knowledge score. However residence, income, occupation and education were found significantly associated with the same variable.

Of the total respondents, 631 (92%) knew that diabetes causes eye-diseases, even 429 (62.5%) of them had never had their eyes examined by an ophthalmologist after diabetes being detected. The mean time of having their eyes checked after diabetes being detected was around 26 2.4 months.

Those who had never had their eyes examined were motivated to do the same immediately. 97% of them showed a positive attitude, although, in practice, only 5% of them were known to visit an ophthalmologist within a month after motivation. Those who visited, more than half (52.39%) of them had some pathology.

Association between knowledge and existing practice showed that 40% diabetics with knowledge of diabetes induced eye-diseases had ever had their eyes checked, while only 7.3% of diabetics without knowledge had

done the same indicating that knowledge tends to improved practice.

## Conclusion

The importance of diabetic retinopathy as a cause of blindness has increased because of longevity and decline in the other preventable causes of blindness in developing countries like ours. A diabetic patient can have a serious eye disease and even do not know it until irreversible vision loss occurs. Diabetic retinopathy has a defined preventive measure to delay the onset and progression of the disease and consequent visual loss.

Faced with this situation there are only two ways left to prevent blindness from diabetic retinopathy --

1. Maintaining a strict glycaemic control; and
2. Regular ophthalmic examinations of those identified as diabetic to detect early retinopathy.

National policy-guidelines will have to be formulated for developing awareness of the community aiming at preventing or delaying the onset of diabetic retinopathy so that diabetic retinopathy does not become a major cause for visual impairment or blindness in the future.

## Recommendation

- Awareness be developed first in diabetic community. 99 per cent respondent told that they did not have any idea about the exact name and consequence of diabetes on eye. If respondent knew that diabetes might cause irreversible visual impairment, many of them would not have shown such reluctant behavior.

- General practitioners, Medicine and Endocrine specialist are usually the first to detect diabetes. They should advise patients to have their eyes checked by an ophthalmologist, who will guide the patients for further management.

The study was performed by Dr Md Ashraf ul Karim Khan, Senior Assistant Professor of Department of Ophthalmology of Gono Bishwavidyalay SV Medical College, Savar, Dhaka (drstisheba@hotmail.com).

# Olive oil fights heart disease, breast cancer

They may smoke more than Americans and their health care system is far from perfect, but Greeks usually live longer than their U.S. counterparts, and they have some of the world's lowest rates of heart disease and cancer.

The secret may be their olive-oil-drenched diet. Scores of scientific studies in the past decade have shown that olive oil, which is high in monounsaturated fat -- the "good" fat -- may prolong life by combating coronary heart disease and different types of cancer. No wonder the Greek physician Hippocrates, known as the father of medicine, is said to have referred to olive oil as "the great therapeutic."

A few months ago the U.S. Food and Drug Administration (FDA) credited olive oil with decreasing the risk of coronary heart disease.

Up to 80 percent of olive oil is made up of monounsaturated fatty acids, which resist oxidation (the process by which fatty acids are degraded) better than poly-unsaturates. Monounsaturated fatty acids help keep HDL-so-called good cholesterol levels up and LDL, "bad" cholesterol, down.



**Olive oil prevents the formation of certain free radicals that may cause cell destruction within the human body.**

In addition, the presence of phenols, tocopherols, and other natural antioxidants in olive oil also prevent the formation of certain free radicals (highly reactive molecules) that may cause cell destruction within the human body.

"Indeed, it is the only added lipid [fat] that has not been associated with increased risk of cancer," said Dimitrios Trichopoulos, an epidemiology professor at Harvard University in Cambridge, Massachusetts.

Olive oil may actually prevent cancer, according to a study released earlier this year. The study showed that oleic acid, the main monounsaturated fatty acid in olive oil, can cripple a cancer gene responsible for 25 to 30 percent of all breast cancers.

"Our findings underpin epidemiological studies that show that the Mediterranean diet has significant protective effects against cancer, heart disease, and aging," said one of the study's authors, Javier Menendez of Northwestern University's Feinberg School of Medicine in Chicago, Illinois.

Other studies have found that olive oil has a favorable effect on both ovarian cancer and bowel cancer. In addition, olive oil is well tolerated by the stomach. It appears to prevent the formation of gallstones as well as have a therapeutic effect on ulcers.

Source: <http://news.nationalgeographic.com>

# Red and processed meat may increase colon cancer risk

STAR HEALTH DESK

Scientists are now recommending eating less processed and red meat to avoid risks of cancer of colon known as alimentary canal in the small intestine. Instead they suggest eating more fish.

A study published in the June 14, 2005 confirms earlier reports that high levels of consumption of red and processed meat are associated with an increased risk of colorectal cancer, and that high levels of fish consumption are associated with a decreased risk of cancer of the same tissue, a press release from the International Agency for Research on Cancer (IARC) said.

Dr Elio Riboli and Teresa Norat, of the WHO's International Agency for Research on Cancer in Lyon, France, and colleagues used data from the European Prospective Investigation into Cancer and Nutrition (EPIC), a cohort of over half a



million Western Europeans, to examine the associations between intakes of red and processed meat, poultry, and fish and colorectal cancer risk.

Over a mean follow-up of 5 years, 1,329 cases of colorectal cancer were documented. In the study population, there was a 35 per cent increased risk of developing colorectal cancer in those individuals who consumed the highest quantities of

red and processed meat, compared with subjects with the lowest consumption.

Dr Teresa Norat said, "At the same time, the risk of developing colorectal cancer was 31 per cent lower among individuals with the highest fish consumption compared with subjects in the lowest category of fish consumption." There was no association between poultry consumption and colorectal

cancer risk, the press release, copy of which was sent to The Daily Star correspondent, said.

The present study showed that the reduction in risk associated with fish consumption and the increase in risk associated with increased red meat consumption are independent from each other.

"Further," said Dr Riboli, the Coordinator of the European-wide EPIC study, "The association of meat and fish consumption with colorectal cancer risk was independent from the reduction in risk associated with dietary fiber consumption that was observed in the same study population."

The IARC Director, Dr Peter Boyle, noted that "colorectal cancer is the second most frequent cancer in men, after lung cancer, and in women, after breast cancer. In 2002, over one million cases of colorectal cancer were diagnosed around the world, and over half a million persons died from this disease.