Star health

DHAKA SUNDAY OCTOBER 7, 2007

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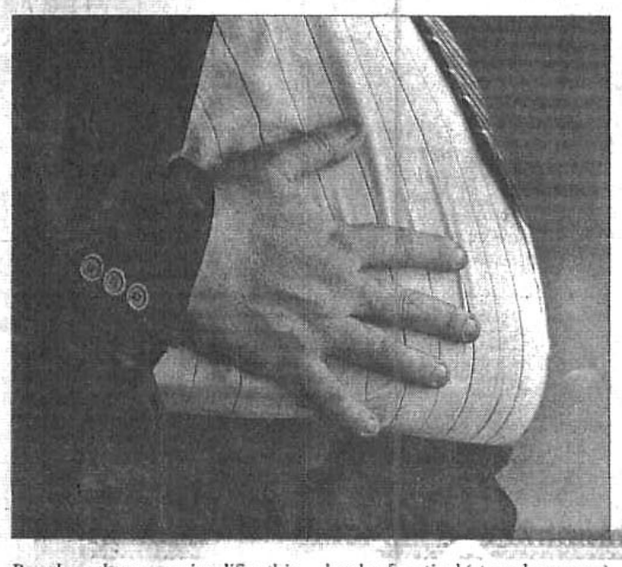
Obesity, not always of overeating

DR RIFFAT HOSSAIN LUCY

Million of individuals are fighting the battle against the weight gain, fat deposits in their bodies. Today while men and women are concerned about their changing weight and shape, the prevalence of overweight and obesity is steadily being increased over the years.

In the past 20 years, the rates of obesity have tripled in developing countries that have been adopting a Western lifestyle involving decreased physical activity and over consumption of cheap, energy dense food. Obese individuals have a 50 to 100 percent increased risk of death from all causes, compared to the normal individuals (BMI 2025). Most of the increased risk is due to the cardiovascular causes. Life expectancy of a moderately obese person could be shortened by 2 to 5 years.

Unfortunately, there is a general misunderstanding about obesity.



Popular culture oversimplifies this complex condition into an idea that — one is fat because one eats more. Such a one-eyed clarification hardly explains why some individuals can eat what they want and never gain an ounce, while others constantly fight to keep their weight down.

Basically, weight gain occurs when our bodies store more calories than they use. That is the simple explanation but the definition of obesity encompasses and depends on a number of factors:

Genes and heredity factors

Obesity tends to run in families, implying genetic factors. The search for an "obesity gene" is complicated.

Environmental factors

Now a days people are inundated with fast food, processed food and enriched food choices on a daily basis. Advertisements of these food products doing boast of their nutrition values, ease of preparation and to make our lives easier.

Psychological factors

It is no surprise that psychological factors and behavioral problems may cause weight gain in people. Evidence show that many people eat when they are stressed, bored or angry. Over time, the association between an emotion and food can become firmly fixed.

Research shows that depression and stress are leading causes of obesity and eating disorders. Indeed, obesity can be traced to behavioral or psychological difficulties.

Physical factors

Physical causes of obesity should always be considered. Certain physical disorders can lead to overeating, or interfere with the body's mechanism that regulates calorie use.

Hormonal factors

In Cushings Syndrome, increased levels of cortisol (stress hormone) are secreted. Cortisol believed to increase the appetite, which may be a indirect cause of obesity. Cortisol activates enzymes to store fat when it contacts fat cells. Central fat cells are deep abdominal visceral cells, which are a fast energy source in times of stress. These central fat cells also happen to have four times more cortisol receptors than the fat cells found right beneath the skin.

Research is slowly revealing how hormones play a role. in obesity. Neurological damage can also interfere with proper calorie intake, especially if the hypothalamus, which regulates appetite, is damaged.

Medications

Certain medications can also be a cause of obesity. Consult your physician if there is any medication which could be responsible for your obesity after the treatment.

Stress

Stress is widely thought to lead to overeating. Studies done by Western Psychiatric Institute, University of Pittsburgh School of Medicine, on stress-induced eating have tested two models showed that stress-induced eating causes obesity.

Stress also triggers binge eating. Without treatment, binge eating disorders can lead to obesity. Binge eating disorders also often lead to vitamin deficiencies, as the food consumed are usually unhealthy.

That is why chronic psychological stress has an effect on body shape through fat distribution, creating what is commonly referred to as an "apple" body shape.

Caffeine

Caffeine also helps in cortisol secretion, which is in much more than coffee. Caffeine is found in so many substances as, over-the-counter medications, chocolate, sodas and tea.

Stress hormone targets your nervous system and brain which increases your heart rate, raises your blood pressure, and stimulates your "fight or flight" stress response. In fact, caffeine reduces your threshold for stress so that you are not able to handle it well.

Insomnia

It was found that the neurological basis of the link between obesity and insomnia make them both independent and related products of the over-activated hypocretin system.

Studies demonstrated the same association of insomnia and obesity and suggested a good night sleep to help counter obesity. Sleep and cortisol are entwined.

It is believed that a lack of quality sleep, known as deep or rapid-eye-movement sleep, can impede surges of growth hormone, resulting in increased fat tissue and reduced muscle mass. Sleep deprivation, which causes lower body temperature and fatigue, usually leads to increased food consumption to boost energy and help you stay warm.

Other factors can also be named as reason of obesity, as, sedentary habit, low energy spending, underlying medical causes, etc. Obesity places great strain on the body, as well as contributing to low self-esteem and depression. Sooner or later, obesity can result in serious complications, including diabetes, heart disease and hypertension.

We have to remember that obesity develops over time and cannot be solved overnight. We have to keep in mind the dangerous complications of drugs for reducing obesity and should not expect dramatic and unrealistic changes.

The writer is a Programme Officer of Partners in Population and Development (PPD).

Life and death of a cancer patient

DR NEJAMUDDIN AHMED

And she died in the evening in a small dark room of a private clinic, suffering from excruciating and unbearable pain. All the family members gathered around her bed, weeping silently as she was screaming in pain, and vomiting repeatedly. They all witnessed helplessly those last few hours of intense suffering as her life gradually ebbed away.

The young attending doctors and the nurses were not insensitive too! But they were not really trained and thus were unskilled and unprepared to face the unique professional challenge of caring for a dying patient. Even a few hours ago the girl was in her house, to be more precise for that afternoon; she was lying on the cold floor of her bathroom, tossing around, yelling at others and begging for some pain relief. Her mother, with all the tears of the world in her eyes was pouring water on her body with the faint hope of giving some relief to her. Who knew more than her that those long apprehended moments which had been haunting the family for last four years finally arrived for her daughter!

Nevertheless, ultimately, the family could not take it any more. They rushed her to a clinic. All they wished now was not her life to be saved, not her cancer to be cured, but to get some relief and comfort for her. That is all they wished only. But, that evening, those medical professionals, like most of their other colleagues were not able to make her pain free, symptom free. They even failed to establish a minimum communication with the family and convince them that medical science has a role to play to make inevitable death a good one, a dignified one.

She had been living with cancer in her for previous four years, medically known as ovarian cancer with widespread metastasis. It was incidentally detected during an operation planned for an apparently innocent cyst of her ovary. Since then, her parents had taken her from renowned cancer specialists to well-named surgeons, clinic to clinic looking desperately to have a 'cure' for their beloved daughter. Almost all options of the conventional modern medical practice were tried on her including a colostomy, numbers of chemotherapy and also sessions of radiotherapy.

The first one was creation of an artificial opening in the left side of her lower tummy for passage of stool. This was done because the tumor lump obstructed her normal food passage and was not removable by operation. This was during the days when she had completed her higher secondary school.

Chemotherapy and radiotherapy were tried, claimed to be aiming at reducing the tumor size. She endured all these painful therapies with the hope of being cured. She did not know that the type of cancer she was bearing was not curable.

She carefully hid her colostomy bag and even got admitted in a diploma course on interior decoration when she felt a little better after the chemotherapy. She had just begun knowing a boy a bit intimately immediately before her operation. One week after her operation, she discreetly asked one young nurse if one could conceive a baby with a colostomy! The nurse did not know what to answer!

One can put forward a very pertinent question! Did the doctors know about the outcome of all what they had been doing! Were they just hoping against hope! If they knew, did they discuss everything with the patient and or with her family honestly with all openness? The answer is probably negative.

During all those four years she had been denied of most of the features of a good clinical care. No honest communication was even tried to be established between the doctors and the patient, not much attention was paid for freeing her from pain, alleviating her physical as well as her psychosocial and spiritual issues.

In a word, nobody really much cared about her as a whole human being. She was just an ovarian cancer patient. Lastly, when everything became too apparent, her belly began getting distended, she started vomiting frequently and when both sides were completely stripped of their resources and strength, the ultimate response of the medical community was revealed.

'There was nothing more they could do'. They had discharged her to home and had left her, abandoned her to the care of the helpless, resource less family members.

In a society where physician's hierarchy prevails, nobody could ask even the basic ethics of medical care, of Hippocrates's oath, of moral issues of abandoning a patient all alone! The disease was incurable and death was inevitable, and she died. But the question remains — were the sufferings also inevitable? Was the intolerable pain, the discomfort and the agony of loneliness, being abandoned in the hand of the family and friends was also inevitable!

Dear reader, the answer is again a confident negative. Some knowledge, some skill attainable with proper training, and above all, an all-together different attitude and holistic approach could very well relieve much of her sufferings and suffering of the family too..

Concept and attitude towards caring for the dying members of the society is not new and has been prevailing since ancient time and became a part of evolution of the civilisation. But integration of scientific programme concerned with the discriminating use of drugs and medical skills with rational tender loving care was first appreciated by the institution called St. Christopher Hospice in London, UK in 1967. Since then, the concept of 'total care' of the incurable patients in an organised form has been widely recognised and acknowledged globally as Palliative care.

It has been appropriately defined by World Health Organization as the care of patients with active, progressive and far advanced disease where the focus of the care is the quality of life. There now exists a wide knowledge base and it has developed into the mainstream of health care.

The medical component of the palliative care, which has been termed as palliative medicine has emerged as a specialty since 1987. There now exists scientifically valid and simple methods of pain control and management of other distressing issues that costs very little and that is maintainable even at community level.

What is needed is proper national health policy, educate and train the health professionals and make necessary affordable drugs easily available along with a creation of people's demand. To appreciate the need of such service integrated into the health care facilities, it has to be recognised first that despite significant advancement of modern medical science, many illnesses still continue to evade cure.

Moreover, in a country like ours, many of the potentially curable cancers become incurable when they are first seen by a doctor. Even after being diagnosed, how many of these patients can really afford the expensive treatment schedule!

Incurability is true for many causes of cancer, progressive neurological disorders, AIDS and end stage disorders of vital organs. When cure is not possible, as often it is not, the relief of suffering should be the cardinal goal of medicine. So, philosophically, palliative medicine is not only applicable for cancer patients only but also for almost all diseases which ends to death.

One may be surprised at how richly rewarding palliative care can be; how surprisingly terminally ill patients speak of the sense of safety they feel when suffering has been relieved and they know everyone is being honest with them and the loved ones they will leave behind.

Palliative care is a basic human right, not a luxury for a few if the society claims it to be civilised or civilising.

Many renowned medical institutions of the world has independent faculty to deliver this service and training facilities. Many organisations are engaged in creating awareness around palliative care.

In Bangladesh, we are looking forward to that day when no death will appear shameful to the rest of the society. As Phillip Ayer puts it "Death should be discrete and dignified exit of a peaceful person from a helpful society without pain and suffering and ultimately without any fear".

The writer is an Associate Professor and Project Coordinator, Palliative care Service of Bangabandhu Sheikh Mujib Medical University.

OFFICE EXERCISE

How to burn calories while you work

DR TAREQ SALAHUDDIN

If you are doing your best to set aside time for exercise either before work or after work, good for you. But finding time to exercise can be a challenge for anyone with a busy schedule. Why not work out while you are at work?

Sure, you know you can park at the far end of the parking lot and take the stairs instead of the elevator. These are great ideas, but there is even more you can do to burn calories during your workday — especially if you sit at a desk most of the day. Consider 10 creative ways to make office exercise part of your routine:

1.Make the most of your commute: Walk or bike to work. If you ride the bus, get off a few blocks early and walk the rest of the way.

2.Look for opportunities to stand: You will burn more calories standing than sitting. Try a standing desk, or improvise with a high table or counter. Eat lunch standing up. Trade instant messaging and phone calls for walks to other desks or offices.

3.Take fitness breaks: Rather than hanging out in the lounge with coffee or a snack, take a brisk walk or do some gentle stretching. Pull your chin toward your chest until you feel a stretch along the back of your neck, or slowly bring your shoulders up toward your ears.

4.Trade your office chair for a fitness ball: A firmly inflated fitness ball can make a good chair. You will improve your balance and tone your core muscles while sitting at your desk. You can even use the fitness ball for wall squats or other exercises during the day.

5.Keep exercise equipment in your work area: Store resistance bands — stretchy cords or tubes that offer weight-like resistance when you pull on them — or small hand weights in a desk drawer or cabinet. Do arm curls between meetings or tasks.

6.Get social: Organise a lunchtime walking group. You might be surrounded by people who are ready to lace up their walking shoes — and hold each other accountable for regular exercise. Enjoy the camaraderie, and offer encouragement to one another when the going gets tough.

7.Conduct meetings on the go: When it is practical, schedule walking meetings or brainstorming sessions. Do laps inside your building or, if the weather cooperates, take your walking meetings outdoors.

8.Pick up the pace: If your job involves walking, do it faster. Take long, easy strides, and remember to breathe freely while you walk.

9.If you travel for work, plan ahead: Exercise does not need to go by the wayside when you are traveling. If you are stuck in an airport waiting for a plane, grab your bags and take a brisk walk. Choose a hotel that has fitness facilities — such as treadmills, weight machines or a pool — or bring your equipment with you. Jump-ropes and resistance bands are easy to sneak into a suitcase. Of course, you can do jumping jacks, crunches and other simple exercises without any equipment at all.

10.Try a treadmill desk: If you are ready to take office exercise to the next level, consider a more focused walk-and-work approach. If you can comfortably position your work surface above a treadmill — with a computer screen on a stand, a keyboard on a table or a specialised treadmill-ready vertical desk — you may be able to walk while you work.

Overweight office workers who replace sitting computer time with walking computer time by two to three hours a day could lose 44 to 66 pounds (20 to 30 kilograms) in a year.

The pace does not need to be brisk, nor do you need to break a sweat. The faster you walk, however, the more calories you will burn.

Want more ideas for office exercise? Schedule a walking meeting to brainstorm ideas with your supervisors or co-workers. Remember, any physical activity counts!

World Sight Day 2007

MD RAJIB HOSSAIN

World Sight Day is set aside each year to focus global attention on vision and blindness. The theme of this year's event on October 11 is *"Vision for Children"* draws attention to the hundreds of millions of children who are born blind or become blind in the course of their early childhood.

Every minute a child goes blind in the world. There are 40,000 blind children in our country. Two thirds of them have lost their sight because of conditions that could either have been prevented or they have conditions where surgery could restore sight.

In developing countries like Bangladesh, blindness carries a big stigma. It deprives them of being an active member of the community; it often excludes them from education, and condemns them to a life of suffering and even early death.

Without any intervention, children who are blind face a high risk of fatality. Over half of the children who get blind die within one or two years. Community based rehabilitation for the blind children and awareness rising is badly needed to overcome this crisis. Otherwise they will be left in the dark forever.

Rashid (left in the photo), 12, from Noagaon was born blind. He used to sit at home, unable to get around and perform simple tasks such as brushing his teeth. He did not go to the school and felt very lonely. After being identified by a health worker of Child Sight Foundation (CSF), Rashid is now getting home base rehabilitation and pre-schooling orientation. He is able to do his daily chores with much more ease. He has learned Braille for study and can move to school alone. He attends a mainstream school. He finds learning easier as he can rely on his sighted peers to help him if he is unable to read or see something.

Rashid believes integrated education is important because it allows students to be closer to their home and friends. "There is no discrimination, we are all friends," he says. Rashid is an ambitious student and wants to be a teacher when he grows up.

Did You Know ?

Heart attacks can occur in teenagers

Although quite rare, heart attacks can occur in adolescents without heart defects; and a case series reported by two cardiologists from The Heart Center at Akron Children's Hospital, Ohio, serves as a of reminder this.

Reporting in the current issue of Pediatrics, Drs. John R. Lane and Giora Ben-Shachar describe nine healthy adolescents (eight boys and one girl), ages 12 to 20 years, who developed severe chest pains and met the criteria for a diagnosis of heart attack.

Heart attacks in teens are "obviously rare but not an impossible diagnosis," Lane said. When an adolescent develops severe chest pain typical of a heart attack, it should not be dismissed lightly.

Lane also noted that this is a "different disease" than heart attacks in adults - the young patients did not have any obvious risk factors, they had normal coronary arteries and they tended to recover without any long-term problems.

Source: Pediatrics, September 2007

Drug Information

Researchers warn about overprescribing Tamiflu

REUTERS, *London*

Sewage systems do not break down Tamiflu, which means the main weapon against bird flu could seep into natural waters and make certain viruses resistant to the drug during a pandemic, Swedish researchers said.

Because of this, doctors should take care to not overprescribe Roche Holding AG's market-leading antiviral drug, they said in a study published in the Public Library of Science.

"Antiviral medicines such as Tamiflu must be used with care and only when the medical situation justifies it," Bjorn Olsen, a researcher at Uppsala University and the University of Kalmar said.

"Otherwise there is a risk that they will be ineffective when most needed, such as during the next influenza pandemic."

Roche, which the researchers said donated the drug for their study, said it was unlikely such resistance would arise.

"In the highly unlikely event that such resistance was generated, this must be balanced against the fact that influenza viruses with the associated mutational changes have been shown to have lower transmissibility," the company said.

Tamiflu, known generically as oseltamivir, was having lackluster sales as a drug to prevent and treat seasonal flu until it was the first treatment to show real efficacy in helping people with bird flu.

Facts about Kelfer

Kelfer is the first oral iron chelator for the treatment of thalassemia

What is Kelfer?
Kelfer (deferiprone) is an iron chelator administered in the form of capsules to the patients of thalassaemia major.

How does Kelfer act?
Kelfer acts by combining with the excess iron in the body to form a complex which is excreted in the urine. This, over a period of time, leads to reduction in the iron overload of the body.

What is the usual dose of Kelfer?
Studies have found that the optimum dose of Kelfer is 75mg/kg/day in 2-4 divided doses taken with or without food.

In some patients doses up to 100mg/kg/day may be administered while in others lower doses of 50mg/kg/day may be sufficient.

What are the side effects of Kelfer?
In about 20 percent of patients, joint pains involve knees, hips, elbows or other joints. The pain may be accompanied by swelling in a few cases. This effect is completely reversible on discontinuation of the drug.

In about 12 percent patients, Kelfer can reduce white cell counts in blood. This can be dangerous and may predispose the patients to infections. In such situations, the patient may develop fever sore throat etc. The drug should be immediately stopped, the treating physician consulted and appropriate therapy instituted. In some cases, hospitalisation may be required till the counts come back to normal.

Some patients experience vomiting tendency which is usually temporary and decreased after 10-15 days of therapy. It is recommended to start drug from a low dose then build up to standard dose over 2-4 weeks time. Anti-emetic drugs also help.

What are the precautions to be observed while taking Kelfer?
Patients taking Kelfer should be regularly monitored for their blood counts and joint pains.

If the total white blood cells falls below 3000/cc of blood or absolute neutrophil counts to below 1500/cc, Kelfer should be immediately discontinued.

If the patient develops fever or sore throat, the drug should be discontinued, a blood test should be immediately done and if the counts are low (as mentioned above), a physician should be immediately consulted.

Is Kelfer Safe?
Kelfer is a safe and effective drug if the side effects are explained to the patients and the above precautions are undertaken to monitor complications.

Is Kelfer better for heart, what is combination therapy?
Iron induced heart disease is the major cause of death among thalassemia patients.

A study published in the Journal Haematologica, reveals that long-term therapy with deferiprone (Kelfer) provides greater protection of the heart from iron overload than standard therapy (Desferal).

The study of combination therapy showed that the favorable effects of both deferiprone (Kelfer) and deferoxamine (Desferal) can be utilised in patients with iron overload by addressing cardiac iron (deferiprone) and hepatic iron (deferoxamine).

Thus combination therapy has a dual action increasing total iron excretion from the body.

How is Kelfer available to patients in Bangladesh?
Kelfer is available to the thalassaemia patients in this country through Bangladesh Thalassemia Foundation (BTF) [House # 36, Road # 27, Dhanmondi, Dhaka 1209; Phone: 01915538339, 01915458065] under certain guidelines.

The patient must be registered to the Foundation with an initial fee and 2 copy photograph. The treating physicians have to fill up special prescription and patient consent forms prior to initiating therapy with Kelfer.

The drug is supplied for a period of 1 month at a time. Subsequently, every time Kelfer is purchased, a fresh prescription order form has to be filled.