



# A boon for osteoarthritis patients

**Z A M KHAIRUZZAMAN**  
Symptoms of osteoarthritis (e.g., joint pain and stiffness, loss of joint function) usually develop between the ages of 40 and 60. The condition primarily affects the weight-bearing joints (e.g., knees, hips, feet, back). It also may affect the neck and the joints in the fingers and hands.

The disease, which can cause significant pain and disability, is the reason for most total knee and hip replacement (TKR and THR). TKR and THR are the surgical procedures for relieving pain from most kinds of knee and hip arthritis, improving the quality of life for the large majority of patients who undergo the operations.

Abdul Malek Mridha, 60, and Tareq Ibne Alam, 22, are two osteoarthritis patients. They became almost disable. But they underwent TKR and THR surgeries. Now, both of them lead a normal life. Malek had been experiencing chronic pain in his right knee for five years due to osteoarthritis, which caused him to walk with a limp.

"Since 2006, I battled knee problems," Malek says. "I would cry because the pain was so unbearable. I took 12 injections for three years but my knee pain did not lessen a bit. However, I came back to normal life after a total knee replacement (TKR) surgery in January, 2011."

"Prof Dr M Amjad Hossain, a leading consultant arthroplasty and trauma surgeon at Labaid Hospital in Dhaka, successfully replaced my knee. Within three days of operation I could walk with the aid of a walking stick. After three weeks I walked unaided and within six weeks I felt completely healthy again," he shared.

Knee replacement surgery removes the damaged joint lining and replaces the joint surfaces with a metal and plastic implant that functions similar to a normal knee.

Tareq a diploma holder in graphics and web designer of Chandpur district got rid of a

painful hip after a successful THR. He has always been very active. But his active lifestyle was endangered years ago. After a fall, he had non-union of fractured neck of femur and suffered for three years. He was also referred to consult the aforementioned orthopaedic surgeon who immediately decided to perform a THR.

Accordingly, Tareq underwent a THR and had a remarkable recovery. His rehabilitation and walking began the day after the surgery and he stayed at hospital for several days. He says, "My quality of life is much better now and I feel that I will be active much longer in life."

## MEDICAL IMAGING

### Optical Coherence Tomography

Optical Coherence Tomography (OCT) is an optical signal acquisition and processing method. It can capture micrometer resolution creates three dimensional and cross sectional images of biological structures using differences in the reflection of light and help for the visualisation of minute details in both two and three dimensionally.

OCT is an established medical dental imaging technique. It is widely used in various fields such as:

**A) Medical Science:**

a) to obtain high-resolution images of the retina and the anterior segment of the eye

b) to image coronary arteries in order to detect vulnerable lipid-rich plaques

**B) Dental Science:**

a) to acquire images of incipient carious lesions as well as advanced carious lesions for diagnosis, prevention and treatment of dental caries

b) to evaluate the different disease of oral mucosa

c) to determine the micro leakage of dental restorations and endodontic fillings

d) to identify the dental implant status sometimes

e) to determine the integrity of dental prostheses, their quality and their marginal fitting

f) OCT is also used in orthodontic treatment, for example, for determining tooth movement under light orthodontic forces.

**The article is compiled by Dr Shaikh Abdullah Al-Jami, University Dental College and Hospital. E-mail: jami\_3005@yahoo.com**



## Physiotherapy for facial paralysis

**DR MOHAMMAD ALI**

Bell's palsy is a paralysis or weakness of the muscles on one side of face characterised by drooping of face, deviation of angle of mouth, difficulty in eating, drinking, whistling, speaking. It is due to the damage to the facial nerve that controls those muscles.

In typical case, smile is one sided, eye on the affected side resists closing and may cause headache, pain in the neck, ear of affected side.

The cause is unknown in most cases and can occur at any age. Fifty percent patients recover within seven to ninety days. However, physiotherapy treatment can be of benefit to speed recovery. Special type of therapeutic exercise for facial muscle should be performed in front of large mirror. The procedure may include facial exercises to activate weak facial muscles, facial massage and use of electrical facial stimulation in longer term cases.

Those whose paralysis persist beyond three months, it is very difficult for him/her to run a business or perform work that demands interpersonal communication. Tropic electrical stimulation is therefore of enormous value to these people.

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## TYPE 2 DIABETES

### How to set diet and weight control strategy



Diet and weight maintenance are two crucial tools to control diabetes. Setting a strategy on food intake and shedding extra pounds is the first and imperative step. The American Diabetes Association recommends that patients with diabetes should aim for a small but consistent weight loss of 0.5 - 1 pound per week. Most patients should follow a diet that supplies at least 1,000 - 1,200 kcal/day for women and 1,200 - 1,600 kcal/day for men.

A realistic plan should be made considering both quality and quantity of food that is fitted with the goal of weight loss plan. There are many approaches to dieting includ-

ing calorie restriction, low-fat/high-fiber, or high protein and fat/low carbohydrates.

Some evidence suggests that people may respond differently to specific diets depending on whether their weight is overly distributed around the abdomen. Ideally, overweight patients should strive for 7 percent weight loss or better, particularly people with type 2 diabetes.

#### The standard dietary recommendations are:

• As a rough rule of thumb, 1 pound of fat contains about 3,500 calories, so one could lose a pound a week by reducing daily caloric

intake by about 500 calories a day. Very-low calorie diets have also been associated with better success, but extreme diets can have some serious health consequences.

• To determine the daily calorie requirements for specific individuals, multiply the number of pounds of ideal weight by 12 - 15 calories. The number of calories per pound depends on gender, age, and activity levels. For instance a 50-year-old moderately active woman who wants to maintain a weight of 135 pounds and is mildly active might need only 12 calories per pound (1,620 calories a day). A 25-year old female athlete who wants to maintain the same weight might need 25 calories per pound (2,025 calories a day).

• Along with diet, exercise specially aerobic has significant and particular benefits for people with diabetes. Regular aerobic exercise, even of moderate intensity (such as brisk walking), improves insulin sensitivity and protect their vital organs e.g. heart, kidney.

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## Knowing for better living

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