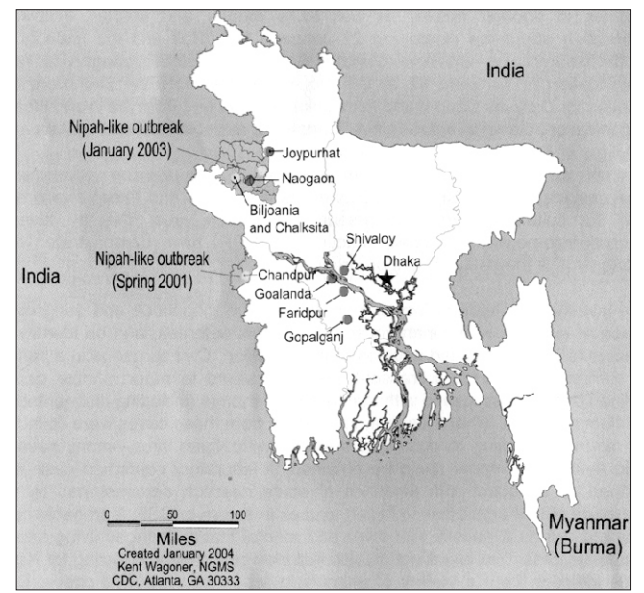


## Nipah encephalitis outbreak over wide area of western Bangladesh



During January and February 2004, an outbreak of Nipah encephalitis occurred. Twenty-nine laboratory confirmed or probable cases were identified; 22 patients died. While most cases occurred within Goalanda in Rajbari District, Nipah associated illness was also identified Joypurhat, Naogaon, Natore, Faridpur, Gopalganj, Manikganj, and Dhaka Districts. There was no clear evidence of person-to-person transmission during this outbreak. Fruit bats (*Pteropus giganteus*) appear to be the principal reservoir for the virus; ongoing studies have the objective of defining the modes of transmission.

Source: ICDDR,B



Fruit bats (*Pteropus giganteus*) appear to be the principal reservoir for the Nipah virus

# Total elbow replacement: A new era in Bangladesh

DR MD SHAH ALAM



DR MD SHAH ALAM

Arthroplasty (joint replacement) in the extremities has been practised for the past 150 to 200 years. From 1781 to 1885 subperiosteal subcapsular excision was done in tuberculous elbow joints. Still now no single arthroplasty has been developed that satisfies all the requirements of every disabled elbow joint.

The history of elbow joint replacement can be divided into four time periods. First period (1885-1947), second period (1947-1970), third period (1970-1975) and fourth period (1975-present). Metallic prosthesis introduced in second period. Recent advancement in high quality metal and poly methacrylate and polyethylene.

Entirely elbow joint replacement was done at first in 1860 by

Verneil and in 1885 by Ollier. It involves removal of the entire elbow joint by resection of the distal humerus and proximal radius and ulna. It was used for the treatment of elbow ankylosis following tuberculosis. Resection arthroplasty is now used as a salvage procedure usually fol-

lowing infection or the to treat a failed irretrievable arthroplasty procedure. A variety of substances have been used as interposition materials for both resection and anatomic arthroplasty of the elbow which improve movement of elbow joint and reduces the chance of ankylosis.

In Europe, arthroplasty was popularized by Payr and Putti, who performed biologic materials or living membranes to cover bone ends.

Replacement arthroplasty of elbow joint is done when functions of the joint are grossly lost. Maybe traumatic, congenital, maldevelopmental, septic arthritis, tuberculosis, rheumatoid arthritis and neoplastic. When elbow is ankylosed or painful and no other surgery can help in that case total elbow joint replacement is very helpful. Proper

selection of patient prosthesis, operation theater and post operative care facilitates the final outcome of the result.

### The picture of our country

Total elbow joint replacement or arthroplasty especially metallic prosthesis is not very commonly done in our country. Actually we are very much over burdened with traumatic cases. Day by day trauma becoming like infectious diseases. This is why sophisticated surgery like prosthesis replacement is sometimes luxurious for us. But it is only understood by the sufferer that it is a basic demand. Anyway replacement of hip and knee joints are very commonly done all over the world. Hip joint replacement has been started in our country few years back. Knee joint replacement has not been done in any government hospitals.

Privately few operations of total knee joint replacement have been done at BIRDEM and in a private clinic. Elbow joint replacement was not done in any hospital except one operation is done by me a year back in a private clinic. So far my memory goes one operation was done at BIRDEM. In government level like in Medical college hospital this is the first time we have successfully replaced a metallic hinged elbow prosthesis in 18 years old man at Sir Salimullah Medical College and Mitford Hospital.

About 10-15 thousand people have been suffering from ankylosed elbow or very painful functionless elbow joint who needs proper treatment like total elbow joint replacement.

This type of operations are going on very commonly in developed countries. In India, Bangkok and Singapore very sophisti-

cated prosthesis are available. But they are very costly. In developing country like Bangladesh very often we cannot afford them very easily. But technology is not so hard for this type of operative procedures. We have skilled manpower in respective sector. We just need our good will and attitude to deal with them.

Comparatively in trauma management our orthopaedic surgeons have wide response. They are doing very noble works and deserves appreciation. If government or NGOs extend their active co-operation in this sector, we can give new life to lot of helpless poor people with minimum expense. In that case we need not go abroad for the treatment of this sort of disability.



Md Munir Hossain (18) with stiff and functionless elbow came to SSMC and Mitford Hospital



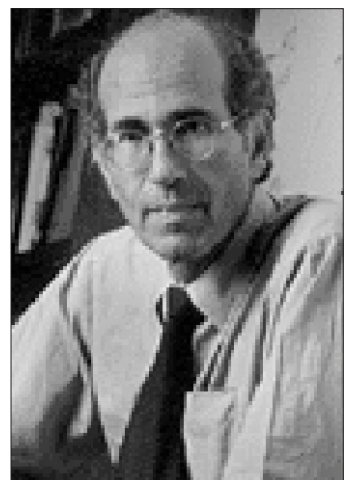
Dr Md Shah Alam along with his operation team successfully replaced total elbow joint with a prosthesis at Mitford Hospital



Total elbow joint is replaced by a prosthesis

## Sweet smell of success

Nobel committee honours work in understanding olfaction



Richard Axel



Linda Buck

### STAR HEALTH DESK

We can recognise around 10,000 different odours. Our ability to smell, known as 'olfaction', is a potent yet often neglected player in our sensory world, and a surprising 3 per cent of our genes are dedicated to fine-tuning its subtleties.

The Nobel Prize committee has now honoured two scientists who have done most to determine just how we recognize and differentiate the scents of roses, wines, or of good or bad meat. Their work also helps explain how an evocative smell can take us back to a

on to the higher parts of the brain, which deal with more complex matters, such as automatic recall of a childhood memory or, more pragmatically, deciding whether to discard a whiffy meal or move closer to a potential mate.

There are many different olfactory receptors, which belong to a more general family of proteins called G-protein receptors. But Axel and Buck showed that each cell in the lining of the nose contains just one sort of receptor.

This came as a surprise to the neuroscience community. But, as the pair went on to show, any receptor can be activated by a handful of related scent mole-

"I had tried so many things and had been working so hard for years, with nothing to show for it. So when I finally found the genes in 1991, I couldn't believe it! None of them had ever been seen before. They were all different but all related to each other. That was very satisfying." -- Linda B. Buck

poignant time in our lives.

Neuroscientists Richard Axel from Columbia University in New York and Linda Buck from the Fred Hutchinson Cancer Research Center in Seattle share this year's US\$1.4-million Nobel Prize in Physiology or Medicine.

Exploiting state-of-the-art molecular techniques over the past two decades, they have developed a complete picture of how a scent is converted into a signal in the brain, where it is not only recognized, but remembered in association with accompanying emotions.

### Making scents

Axel and Buck showed that each particular scent molecule activates a particular receptor on a particular cell in the lining of the nose. They identified the chain reaction that results from this activation, which involves a transducing 'G' protein and ion channels that open and close.

They also worked out the neural circuitry that passes the signal

cules at different intensities. And most odours are composed of many molecules, which activate different receptor-bearing cells. The researchers revealed a combinatorial code, often likened to the colours on a patchwork quilt, that allows us to recognize, and form memories of, around 10,000 different odours.

### Wide application

The general principles of their work apply to other sensory systems such as that of pheromones. These are molecules that affect social behaviour in animals and that are regulated by a different family of G-protein receptors.

"The work has really been a tour de force in molecular biology," says Jonathan Ashmore, a sensory physiologist at University College London. "The pair saw the problem through from beginning to the end with extraordinary determination."

Buck is only the seventh woman ever to win the Nobel Prize in Physiology or Medicine.

## Don't get worried about your deviated nasal septum

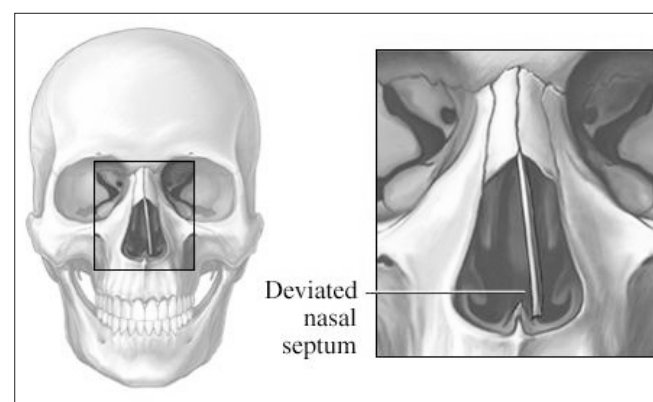
TAREQ SALAHUDDIN

The nasal septum is the wall separating the left and right nostrils from each other. A deviated nasal septum occurs when the nasal septum is not centered between the two nostrils. A well-centered septum allows equal airflow through each nostril.

A deviated septum may cause no symptoms at all. In severe cases, however, airflow through one or both nostrils may be blocked. Nostril blockage may cause chronic stuffiness (nasal congestion) and a tendency to get sinus infections.

### Causes

Causes include--  
 ↳ Present at birth; arose during fetal development (5 per cent of cases)



Deviated nasal septum

↳ Birth injury to the nose

↳ A blow to the nose, often during an accident or while playing sports

### Risk factors

A risk factor is something that increases your chance of getting a disease, condition or

- ↳ Sinus infections
- ↳ Nosebleeds
- ↳ Breathing noisily during sleep
- ↳ Facial pain or headache
- ↳ Post-nasal drip

### Treatment

Most people with a deviated septum don't require treatment. In severe cases, surgery may be recommended. Surgery on the septum alone is called septoplasty. Septoplasty relieves nasal blockage by centering the septum between the two nostrils. Sometimes surgery to reshape the nose (rhinoplasty) is performed at the same time. The two procedures together are called septorhinoplasty. Children who need surgery usually wait until they have stopped growing, around age 16.

### Symptoms

Symptoms include--  
 ↳ Stuffy nose (one or both sides)

## New blood test advised for diabetes patients

A relatively new blood test for people with diabetes can predict their risk of developing heart disease, US researchers reported.

Two separate studies suggest that people with both type 1 and type 2 diabetes should regularly take the hemoglobin A1c test, on top of their regular checks of blood sugar.

The H1c test looks for glycated hemoglobin, also called glycosylated hemoglobin, and is a measure of how well blood sugar is controlled.

In one study, Dr. Sherita Golden and colleagues at Johns Hopkins University in Baltimore re-analysed the data from 13 studies involving nearly 10,000 people and found those with higher levels had much

higher risks of heart and artery disease.

Writing in the *Annals of Internal Medicine*, they said a 1 percentage point increase in H1c predicted an 18 per cent increase in risk for total cardiovascular disease and a 28 per cent risk for peripheral vascular disease -- clogged arteries in the legs, for instance.

Although diabetes is known to double the risk of heart disease death, Golden said the specific relationship was unclear. "As a result, many people living with diabetes monitor their health for well-known risk factors for heart disease, such as obesity, cholesterol levels and blood pressure -- but, the big unknown has been the role of blood sugar

levels in managing their risk of developing cardiovascular disease," she said in a statement.

A second study found similar results. Dr. Kay-Tea Khaw of Cambridge University and colleagues at Britain's Medical Research Council studied 10,030 people aged 45 to 79 for six years.

They found a 21 per cent increase in cardiovascular "events" such as heart attack, for every 1 percentage point increase in hemoglobin A1c above 5 percent.

"Persons with H1c concentrations less than 5 percent had the lowest rates of cardiovascular disease and mortality," they wrote.

This was true even when

patients were older and fatter and regardless of blood pressure or cholesterol levels.

The two studies "clearly prove that the glycosylated hemoglobin level is an independent progressive risk factor for incident cardiovascular events, regardless of diabetes status" Dr. Hertzler Gerstein of McMaster University in Ontario, Canada wrote in a commentary.

"Glycosylated hemoglobin level can now be added to the list of other clearly established indicators of cardiovascular risk, such as blood pressure and cholesterol level," added Gerstein, a diabetes expert.

Source: <http://www.reuters.com>