

**C**ATARACT is opacity in the lens of the eye. The normal lens allows light to reach the retina. When it becomes opaque and does not allow light to reach the retina, we are unable to see clearly.

Today, modern medical advances have made cataract surgery very successful. New surgical techniques and intraocular lenses can restore excellent vision in 97 per cent of all cases. In the 1960s, Dr. Charles Kelman from the U.S. started a technique called Phacoemulsification in which cataracts were removed through minute incision. Then in 1998, Dr. Amar Agarwal from India started a technique called Phakonit in which cataracts were removed through a one mm opening. In 2001, a special lens was made which went through a small opening of one to 1.5 mm. This was called the Rollable Intraocular Lens.

The causes for cataract formation are not fully known. It is basically an aging phenomenon. Next to old age are other factors like deficiency of food like proteins and vitamins, some toxic drugs, general diseases like diabetes, infections and injuries. Sometimes German measles in pregnant mothers causes cataract in the child.

To delay the onset of cataract one should:

Take nourishing diet rich in proteins and vitamins. Food such as liver, eggs, milk products, carrots, cabbages and yeast are good.

Protect your eyes from excessive exposure to sunrays, X-rays, intense heat and injuries.



ARUNANGSU ROY/CHOWDHURY

HEALTHWATCH

# Clear vision

Cataract operations have been made simpler by the development of a new technique called Phakonit, writes **DR. ATHIYA AGARWAL**.

Diseases such as diabetes and syphilis should be treated early and effectively.

There is no medical treatment for cataract. The only treatment is surgery. Once the cataract is removed, the eye is unable to focus, as there is no lens. So one has to use an artificial lens. This can either be a pair of spectacles, contact lens or an intraocular lens.

Spectacles can be used but these are very heavy and not comfortable. Further, if one removes them the person is

blind. Other disadvantages are that everything is magnified and the side view is very poor.

The second alternative is to use contact lens. This is an artificial lens placed on the eye. The disadvantage as with spectacles is that when it is removed the person is blind. Another problem is that they have to be put on in the morning and removed at night, which is difficult for an old person.

So, the best method is to give the patient an intraoc-

ular lens. This is an artificial lens in the eye during surgery. It will remain in place till the end of life. This lens does not irritate the eye.

Today, cataract surgery is an out patient procedure. The patient comes in the morning for surgery and after the operation can go home. The surgery is done without any injection, without any pad and without any stitch being placed in the eye. This is called the no injection, no pad, no stitch cataract surgical technique.

The patients are not at all admitted in the hospital. The patients can go back to work the next day.

One of the biggest breakthroughs in cataract removal has come from India by a technique called Phakonit. In this, the incision is reduced from three mm to one mm.

The first step is to make the incision. Then the instruments for Phakonit are passed into the eye and the cataract cut into small pieces by Phakonit and finally the whole cataract removed.

The problem with this technique was to find an IOL, which would pass through such a small incision. Then on October 2, 2001, the first case of a Phakonit Rollable IOL was done. The lens used was a special one from the U.S. The advantage of this lens is that it is very thin and, when placed in water, becomes pliable and can then be rolled and inserted into the eye. Inside the eye, the lens opens gradually. The patient can leave immediately.

With advances of surgical techniques, the success rate is between 97-99 per cent. Complications like infection and haemorrhage are very rare. If the retina or nerve of the eye is damaged, then even after cataract operation the person will not see.

Putting large lenses in large incisions is bucking the tide of history. Small incisions offer the best chance for most-rapid, stable visual rehabilitation of the cataract patient at the least cost, including time of impaired vision following surgery, the need for follow up care, the attendance of relatives to take care of them to the doctor and the like. ■

**Ask the Doc ...**

Our panel of doctors offers advice and suggestions in answer to questions from readers.

## Heart trouble

**S. Venkiteswaran:**

The patient, Mr. Chandru, has already undergone two angioplasty operations in the last 6-7 years with three stents. The problem was 90-95 per cent block. Would you be kind enough to suggest ways and means to avoid further deposition of platelets/fat/cholesterol in the heart arteries? The patient has normal cholesterol and slightly higher triglycerides. Please suggest ways to increase HDL and lower LDL. The blocks had occurred even when the cholesterol level is within normal limits. Please oblige by suggesting the proper food style, life style and other things to avoid further blocks. The patient is around 60 years and is a pure vegetarian.

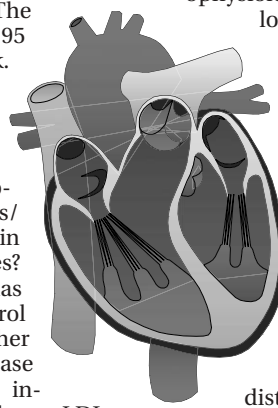
**Dr. P. Ramachandran, Senior Consultant Cardiologist, replies:**

Mr. Chandru may have "abnormal tissue growth" at the stented site and using drug-coated stents can lessen this. The stents are impregnated

with minute amounts of powerful inhibitors of tissue proliferation. When after the stents, patients require another mode of treatment for angina CABG surgery can be advised. Coronary blocks reflect a long pathophysiological process. For long periods, the depositions inside the coronary arteries may remain silent and a sudden trigger can expose the lumen causing acute symptoms with risk of MI due to occlusion of lumen and propagation of bits of blocks to distal vascular bed.

Vegetarianism and apparently normal cholesterol levels do not give immunity from CAD. The risk factors are numerous — age, sex, hypertension, diabetes, smoking, obesity, lack of physical activity, hyper or dyslipidaemia. The newer risk markers are lipoprotein (a); homocystine and fibrinogen. Interestingly, when many risk factors are present individually, they may not be harmful but their "interaction" is much more harmful. "Resting" state factors can get "oxidised".

Absolute change in lifestyle



— healthy, balanced diet, regular walking, abstinence from smoking and drinking, fixing lower targets for BP, sugar and cholesterol in such patients is beneficial. HDL cholesterol protects by suppressing the harmful LDL and can be increased by drugs — Fibrates and niacin. There are reports of weekly injections of APO-Milano-A to increase HDL. Currently statins are recommended to all patients with heart disease irrespective of their cholesterol levels.

## Tumour?

**Santosh:**

I am a 28 year old studying in the United States. I have recently developed some lumps on my body — two on the stomach, two on inner thighs and one on my left arm just above elbow. I showed this to a university doctor and he said they were benign. But I spotted four more. For last six months I have been under tremendous stress about my finances. I had a chronic problem of uneasiness in my stomach. All through the day I feel severe strain in my stomach except at night. But now I am overcoming that stress problem. Please suggest what I should do.

**Dr. Uma Krishnaswamy, General Surgeon, replies:**

As indicated by your University doctor, these are benign lumps that are no cause for worry. These may arise either from fat or from nerves under your skin. They are unrelated to stress. No treatment is required for these. If it becomes problematic, in terms of increase in size or pain, then the lump may be removed by a minor operation. ■

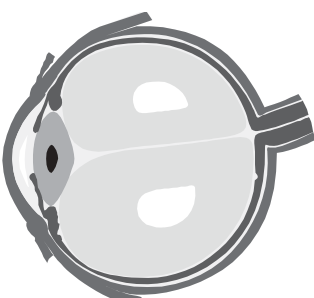
**D**IABETES MELLITUS occurs because of lack of insulin or due to the presence of factors that oppose the action of insulin.

The end result is an increase in the blood glucose concentration (hyperglycaemia). Ocular problems in diabetes usually affect people who have long-standing and uncontrolled diabetes mellitus. The common complications are cataract and diabetic retinopathy.

Cataract usually occurs at about 60 years of age but in diabetics, it could appear at a much younger age. Cataract is removed surgically by a technique called Phacoemulsification with intra-ocular lens implantation.

Diabetic retinopathy is es-

# Diabetes and the eye



Diabetes can cause eye diseases.

**Dr. VIJAY SHANKAR** looks at the problems and the cures.

entially a disease process, which affects the blood vessels of the retina.

The longer the duration of diabetes, the greater the incidence of diabetic retinopathy. Blindness due to this is a major cause of irreversible blind-

ness in old age.

The pathological changes in diabetes lead to lack of blood supply or ischemia of the retina and hypoxia (lack of oxygen) or retinal tissues. Long-standing hypoxia leads to formation of new blood vessels. These are fragile and bleed easily. Excessive bleeding in the eye leads to vitreous haemorrhage and loss of vision.

There are four stages in dia-

betic retinopathy: Background; pre-proliferative; proliferative and advanced.

A special photographic process is very helpful in detecting early effects of diabetic retinopathy. This is known as Fundus Fluorescein Angiography (FFA). This involves injecting a dye through the arm into the bloodstream. As the dye is carried into the eye, photographs of the retina are taken showing areas of leakage

or poor blood flow.

Laser photocoagulation is the mainstay in the management of diabetic retinopathy in stage two and three.

Laser is used to seal or obliterate abnormal leaky blood vessels. Laser treatment to the retina at the appropriate time prevents blindness in majority of patients.

Advanced diabetic eye disease comprising vitreous haemorrhage and tractional retinal detachment requires surgical intervention and endo-laser photocoagulation.

Hence the ocular complications of diabetes can be prevented by control of diabetes by medication and diet; control of associated disorders like hypertension and anaemia; and regular eye check ups and immediate treatment of the problem. ■

# Drink that milk



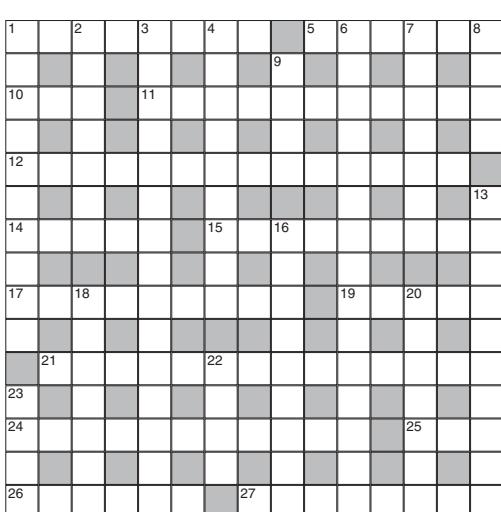
**C**OUNTLESS studies have shown that calcium is essential for healthy bone growth and every parent knows that milk is an excellent source of the mineral. Now the first study of bone development in healthy children who have avoided milk has shown the impact of that deficiency.

New Zealand researchers at Otago University found that children who didn't drink milk were shorter and their bones were smaller and more fragile than those who drank it regularly. The bone mineral density of those who avoided milk was seven per cent lower than that of children in the control group and some children were 20 per cent below normal. A high proportion of the boys and girls, ages three to 10 had already experienced broken bones. On average, the milk avoiders were about 2.4 inches shorter than the milk drinkers. Although past research had shown that children who are allergic to milk or who are lactose intolerant have low calcium levels, no studies had evaluated as many bone measurements in healthy children who deliberately avoid milk.

The researchers also discovered that few of the chronic milk avoiders drank calcium-rich substitute drinks or took supplements. ■

LOS ANGELES TIMES SYNDICATE

## The Hindu Crossword No. 2551



- Across**
- Disregard festival (4,4)
  - I step back taking in face of constantly frozen peak (6)
  - On a limb (3)
  - Drink situation is conjecture (11)
  - Game from E Sussex town eaten by mum, boy and girl (5-9)
  - A practical joke, parking on place reserved for taxis (5)
  - Article, very gently lifted, is valued (9)
  - Mysterious count, rare storyteller (9)
  - Power shown by second eleven? (5)
  - Former county bridge player given small glamorous part (5,9)
  - Bar in it? One, I suspect, leading one to drunkenness (11)
  - Be in debt to some ne'er-do-well (3)

- Former model lay bare (6)
  - Boy is found near the French cathedral city (8)
- Down**
- Europeans wanting a divorce, having nothing in common (5,5)
  - Italian lady in sarong? I must be wrong (7)
  - Friendly Greek postman's new round at home (2,8,5)
  - Danes leap daringly from walkway (9)
  - Awfully insane compiler's offence (5,10)
  - Cold, silent, ugly customers (7)
  - Left-wing, like the *Financial Times*? (4)
  - Set up to sell game (4)
  - Legendary couple almost decided against plunging into river (4,3,3)
  - A "Cape" trip arranged for each person (3,6)
  - Photograph showing miss in competition (5-2)
  - Engulf one climbing across Greek steamship (7)
  - Kill to support very bad habit (4)

### Solution No. 2550

THREE THOUSAND  
A TORQUO  
TSLANDRESSING  
LEYTIERACCL  
IMPRESSED NOOSE  
NOWRMA  
GALLIPOLI SAPID  
YSBVPPO  
COPSE STEVENSON  
AUSTRALIAN  
SEDAN AMENMENT  
HDIICAWWNU  
GIRICLARLETTER  
NHELLELIA  
EGRESSES LYSOL

### THE WEEK AHEAD

#### QUERIES ANSWERED

**I was born on July 27, 1983 at 10:30 a.m. I am preparing for engineering. Is there any chance for success?**

**Deepa Sinha, Patna.**  
YOU belong to Dhanishta star and Kumbha Rasi. Your Lagna is Kanya.

You have excellent chances to do a professional course in particular, computer/engineering subjects and even you have chances for Post-Graduation studies.

Since Mercury and Sun are in excellent position. You will do well in studies in whatever branch you wish to aspire.

**Good Dates: No good dates this week**

**MESHA** (Stars - Aswini, Bharani and Kritika first quarter)

Saturn gives you courage. Financially, a favourable week. Career women may pick up slowly. Students and professionals will have mixed trend. New ventures may show satisfactory progress. Realtors will have mixed trend. Technical and computer people see better trends. Speculation may not be highly profitable.

**KATAKA** (Stars - the last quarter of Purnavasu, Pushya and Aslesha)

New ventures show satisfactory progress. Career women see mixed trend. Favourable week for government servants. Money flow will be satisfactory. Speculation may give small gains. Chandrashtama: From 4.00 p.m. on April 14 to 10.34 p.m. on April 16.

**THULA** (Stars - last two quarters of Chitta, Swathi and first three quarters of Visakha)

Some may be away from family on a sudden trip. Better trends for government servants. Realtors will have tough time. Students will have mixed trend. Career women should be careful. Speculation may give moderate gains. Money flow will be quite satisfactory.

**MAKARA** (Stars - the last three quarters of Uttarashada, Sravana and the first two quarters of Dhanishta)

Handle financial matters carefully. Career women pick up slowly. Better trends for self employed. However, financial status may not be encouraging. Technical and computer people see mixed trend. Avoid speculation. Inherited properties may not give proper returns.

**RISHABHA** (Stars - Kritika last three Quarters, Rohini, Mrigasira first two quarters)

Sun transits favourably for some time in the week. Be careful with financial matters. Some may try to sell inherited properties. New ventures may not show satisfactory progress. Career women may not be happy. Chandrashtama: From April 11 to 11.34 a.m. on April 12.

**SIMHA** (Stars - Makha, Poorvaphalguni, Uttaraphalguni first quarter)

Students and professionals see mixed trend. Financially be watchful. For some in government service it may be necessary to go on long leave. Chandrashtama: From 10:34 p.m. on April 16, extends to next week.

**VRISCHIKA** (Stars - the last quarter of Visakha, Anuradha, Jyeshtha)

New ventures show slow and steady progress. Students and commission traders may do well. Financially it is 50:50. Some may try to part with inherited properties. Avoid confrontations with grown up children. Speculation is not advisable. Some may have eye problems.

**KUMBHA** (The last two quarters of Purnavasu, Pushya and Aslesha)

Some may be trying to sell inherited properties. New ventures show slow progress. Technical and computer people will have mixed trend. Money flow will be sufficient to meet the day to day expenses. Career women and those connected with media may climb up.

### KHOUSIKAN

**MITHUNA** (Stars - the last two quarters of Mrigasira, Arudra and the first three quarters of Purnavasu)

Some in government service get elevation with transfer. New ventures may show slow progress. Money flow may not be encouraging. Technical and computer people see a dull spell. Chandrashtama: From 11.34 a.m. on April 12 to 4.00 PM on April 14.

**KANYA** (Stars - the last three quarters of Uttaraphalguni, Hastha and the first two quarters of Chitta)

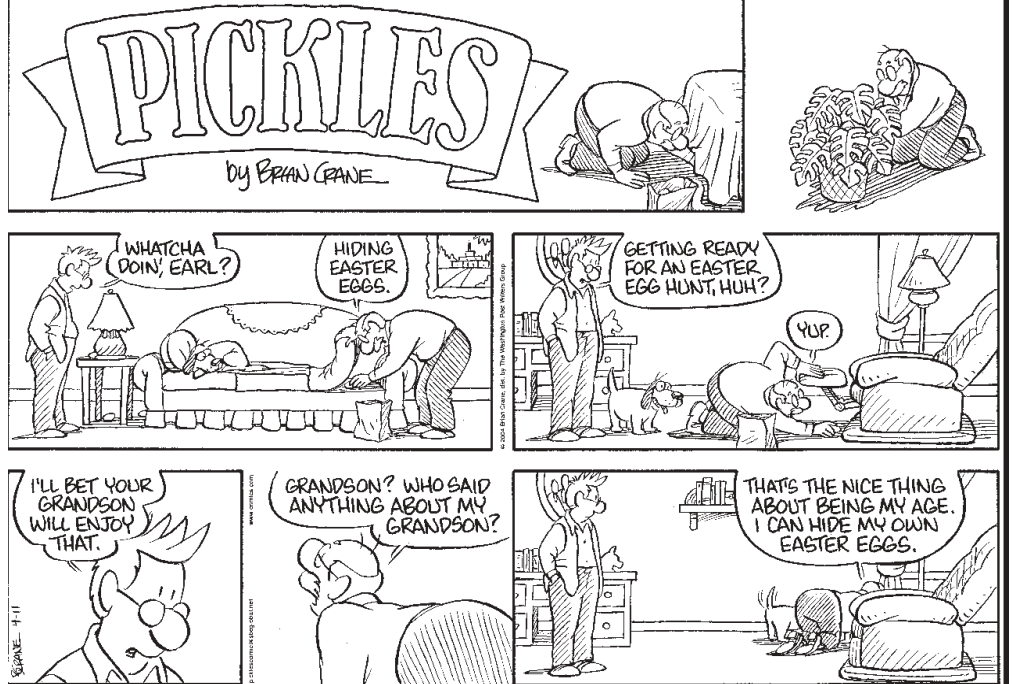
Better trends for students, professionals and commission traders. New ventures show slow progress. Money flow may not be sufficient. Technical and computer people see mixed trend. Career women pick up slowly. Speculation may not be profitable.

**DHANUS** (Stars - Moola, Poorvashada and the first quarter of Uttarashada)

Career women may look out for a change. Technical and computer people may do well. Industrialists should be careful. For some in government service it may be a favourable move with marginal benefits. Money flow will be quite satisfactory.

**MEENA** (Stars - last quarter of Poorvabhadrapada, Uttarabhadrapada, and Revathi)

Some in service may not be happy. Career women should be careful at the workshop and those connected with media may face a dull spell. Better trends for technical and IT people. Avoid new ventures. Industrialists and self-employed may face set back in production.



**T**HE very mention of pub sends one's spirits soaring. A fair number of bridge players are fond of the occasional drink. Bridge itself is addictive. Add a drink, the concoction could be a witch's brew.

What has pub got to do with bridge? One would have thought nothing in common till one learns that in Netherlands the game is played in hundreds of pubs.

In the conventional setting, world over, East-West pairs move from one table to another. In Netherlands, after each round, the E-W pairs, move not from one table to another, but from one pub to another!

Currently every city in Netherlands has one or more pub drive. The first pub drive was held in the city of Groningen in

1983. It started off with 60 pairs. The city of Den Bosch with around 50 pubs participating in these drives would seem to head the table now in the number of participating pubs. The average number of participants is about 120 pairs. The number of tables per pub varies from three to 20.

Maastricht, in south-eastern Netherlands, on the Maas, near the Belgian border boasts many historic structures including the Sixth Century Cathedral of Saint Servatius, the oldest church in the country. Maastricht hosted the Bridge Olympiad 2000. In the following hand south is

in 6 spades. West gets off lead with D Q. The N-S hands is

S: K 4 3  
H: A 4 3 2  
D: 5 4  
C: 8 6 5 2

N  
S

S: A Q 7 6 5 2  
H: 7  
D: A K 6 3  
C: A K

trumps break he has 6 tricks therein and two each in the minors. Heart ace gives him the eleventh trick. The twelfth trick has to be worked through ruff of diamond in dummy. Winning with the king, he plays the spade ace. Both opponents follow.

He next cashes DA and plays a low diamond. He ruffs high — with the king! His pessimism is justified. East discards a heart. Declarer cashes heart ace and comes to hand via a ruff therein. He plays his last diamond and ruffs with dummy's low spade, last spade. East over ruffs and plays a club.

Declarer wins with the ace and removes the outstanding trump and claims the contract. Had declarer ruffed low the first time, East would have over ruffed and removed the trump. The complete hand

S: K 4 3  
H: A 4 3 2  
D: 5 4  
C: 8 6 5 2

S: J 10 8  
H: K J 8  
D: 9 8  
C: Q 10 9 7 4

S: A Q 7 6 5 2  
H: 7  
D: A K 6 3  
C: A K

Thanks are due to Dutch friends, and in particular Ad Cozijn, Nederlandse Bridge Bond, Utrecht for the inputs. And V.N. Rajagopalan. ■

K.CHANDRAMOULI