

# Sowkhya

Magazine™

February 2014

## **Botox Injections**

The Fountain Of Youth?

## **Cholesterol**

Analysing The 'Fats'



## **Curry Leaves**

Time to bite  
down on them!

***And a Whole Lot More!***

## Welcome to the February edition of Sowkhya Magazine™! I hope you have had a great start to the year.

Human body is a unique and wondrous machine. It needs several essential elements such as electrolytes, nutrients, sugar, hormones etc. to function normally. In addition to this it also needs carbohydrates, proteins and fat for day to day activities. One of the essential elements needed for the formation and action of hormones is cholesterol. However, any increase or decrease in any of these above substances may not only result in abnormal body function but can also cause diseases related to that particular element.

Abnormally high cholesterol in the body leads to a condition called atherosclerosis, which is nothing but thickening of the blood vessel walls in the body, specially the heart, brain and legs. In the presence of other associated conditions like diabetes, high blood pressure, cigarette smoking etc. this will lead to further narrowing of these arteries and their ultimate obstruction. This damages the heart causing heart attack. Hence it is very important that we maintain normal or low LDL levels and high HDL levels which will suppress the atherosclerotic process and thus reduce the risk of MI.

In this issue we have highlighted certain aspects of blood fats, its benefits and harmful effects it can cause to our body system. Also discussed within is how to reach target levels. As always, we have also looked at a few general topics which I am sure will offer you some useful information regarding common medical conditions that people in India experience.

I wish you good health. Until next time, stay well!



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### Xanthelasma - Little Blobs of Lipids

Cholesterol in our body can cause not just problems with our heart but can also affect the skin and other tissues in the body. The deposition of small plaques on the skin around the eye is seen in individuals who have high lipid levels. These plaques are called Xanthelasma. Here, we shall take a look at them in a bit more detail.



#### What is xanthelasma?

Xanthelasma refers to small yellow plaques that are present on the surface of the skin that lies over the eyelids. The word xanthelasma is derived from the greek word *xanthos* that means yellow and *elasma* which means beaten metal plate.

#### What causes Xanthelasma?

Around 50% of xanthelasma is associated with elevated lipid levels in the blood. However, in some cases, it could occur with normal lipid levels. The presence of xanthelasma often warrants regular cholesterol checks and treatment of high cholesterol if needed.

#### What are the clinical features?

Typically, patients present with small, elevated plaques that are seen in the inner eyelid. Xanthelasma are seen most commonly on the inner aspect of the upper eyelid, though they may be seen on the lower eyelid sometimes. They are typically soft though they can also be rather firm or rough on the surface on some occasions. They tend to be symmetrical, meaning that they involve all 4 eyelids,

#### Diagnosis

The diagnosis of xanthelasma is usually through clinical examination. Patients may need a lipid profile test to see if any treatment of high lipid levels is needed.

#### Treatment

There is no specific treatment available for this condition as it does not cause any symptoms as such. Reducing the lipid levels is of prime importance. Surgery may be an option, but more recently specialized treatment such as carbon di-oxide laser and electrocauterisation are being used more often.

### Understanding 'Lipoma'



Under our skin are a variety of cells. Of these, fat cells form an important component that is intermingled with skin cells and muscle cells. However, on some occasions, these fat cells can accumulate at one area or multiple areas under the skin, forming a small 'bump' just under it. This small lump of

fat cells under the skin is called a **lipoma**. Here we take a look at this in a bit more detail.

#### What causes a lipoma?

The reason why a lipoma develops is not clear. However, it does appear to run in families. There are some that believe that it can be brought on by injury. However, lipomas are not related to being overweight or obese. Lipomas are often seen in middle aged individuals, and are seen in multiple numbers more commonly in men.

#### Can it cause any symptoms?

In a majority of cases, a lipoma is just a small lump measuring 2 to 3 cm that lies under the skin and causes no symptoms at all. They are soft and rubbery to the touch and are completely painless. They rarely grow and can remain the same size for an entire lifetime.

#### Is it a worrying condition?

No, lipomas are completely benign and do not cause any problems whatsoever. If at all, they are cosmetically unpleasant if they are clearly visible on exposed parts of the body.

#### Can they be treated?

There is no real need to treat them unless very large and on the exposed parts of the body. They do not become cancerous, so they will just remain there for the rest of one's life. If however lipomas become painful or red and swollen, then surgery may be performed to remove them. This option may also be offered to patients who notice an increase in size, or are just very conscious of them. Removal is simple and can be done with a simple surgery.

In conclusion, lipomas are a common benign skin lesion that occurs due to accumulation of fat cells under the skin. They are painless and are completely harmless.

# Cholesterol – Analysing the ‘Fats’

Our body requires a variety of nutrients to function adequately. These nutrients include not just proteins and carbohydrates, but fat as well. There has been much publicity about cholesterol and how it can be bad for one's health, but the fact of the matter is that it in fact is one of the most essential parts of an individual's diet.

Surprised? Well, here we take a look at why it is important, and what components are essential and what are not.

## What is cholesterol?

Cholesterol is a yellow, fatty, waxy substance that is present in literally every cell of our body. It is synthesized in the liver from the fats we consume and is transported to the cells and the vital organs through the blood stream. Cholesterol is an essential element in the synthesis of the hormones in our body, and is required to maintain the integrity of cell membranes and structures of tissues.

But there is a problem. Too much cholesterol in the body can be bad for you. In fact, studies have linked high cholesterol levels with a higher chance of developing heart disease and stroke.

## Types of cholesterol

Broadly classified there are 4 different type of cholesterol. **High density lipoprotein (HDL)** cholesterol is the type that binds to specific carriers in the blood and moves the cholesterol from the rest of the body to the liver where it is broken down. HDL cholesterol is 'good cholesterol'. **Low density lipoprotein (LDL) cholesterol** is 'bad' cholesterol as it transports cholesterol from the liver to the rest of the body, and studies have shown that LDL cholesterol can cause atherosclerosis which leads to heart disease. The other types include **very low density lipoprotein (VLDL)** and **triglycerides** which are also equally important and require treatment if levels are elevated.

## Achieving the right levels

Cholesterol levels tend to be rather high in Indians mostly because of our diet and to an extent due to genetics. There are certain steps that can be taken to reduce cholesterol levels in the blood, and this usually includes a diet free from fried and fatty foods such as sweets and snacks and plenty of exercise. However, in most cases this is just not enough. A majority of patients with high cholesterol levels require medical treatment, and this includes the use of drugs called statins. Statins reduce cholesterol levels by blocking the enzyme that is responsible for the synthesis of cholesterol in the liver. Studies have shown that it is probably one of the most important treatments that patients must be on if they have high cholesterol, as it can significantly reduce the chance of developing heart disease in the future.

Get your cholesterol checked today, and take the right steps for a long, healthy and heart disease-free life!

Cholesterol	Normal Values	Ideal Values
<b>Total Cholesterol</b>	120 – 220 mg/dL	<160 mg/dL
<b>LDL Cholesterol</b>	100 – 140 mg/dL	<100 mg/dL
<b>HDL Cholesterol</b>	35 – 50 mg/dL	>45 mg/dl (women), > 50 mg/dL (men)
<b>Triglyceride</b>	90 – 150 mg/dL	<150 mg/dL

## Curry Leaves: A New ‘Leaf’ for Life!

Curry leaves are a popular spice added to food to enhance its flavor. It is especially popular in South Indian cuisine. It is not uncommon for it to be discarded by the person eating the food, with many considering it to be an annoyance and even useless to health. But this is far from the truth. Let's take a look at it here a little more closely.



One of the primary benefits that curry leaves have is that it helps the release of digestive enzymes, reducing the chances of developing an upset stomach. But that's not all. It also helps to improve the eyesight of an individual, as it contains high amounts of vitamin A.

This property of curry leaves can help prevent cataracts in the future. It is also full of folic acid which plays an important role in the absorption of iron from the diet. Iron helps keep the blood cells healthy and the hemoglobin levels normal.

Another property of curry leaves is that it is rich in antioxidants. This helps fight toxic free radicals in the body that if left untreated can cause premature ageing and damage to vital organs.

The next time you see a curry leaf in your food, make sure you bite down on it and experience all its goodness!

## Botox Injections – Are They Really the Fountain of Youth?

In the recent years, there has been much ado and chit-chat about having what is commonly called 'younger looking skin'. We have seen the adverts just too many times! "Get fairer skin, get younger looking skin, take years off your age!" has become such commonly made statements that people have actually started to believe it.

In the western world and in some parts of India too, this craze is now beginning. The younger generation now judge their appearance based on their favorite movie stars, and aspire to look like them. Those who can afford it seek specialized treatments, and one such treatment is botox injections.

Botox is botulinum toxin – a toxin that is released by bacteria called *Clostridium Difficile*. This toxin blocks the conduction of impulses through nerve fibers. When injected into the muscles of the face, it tightens the muscles by increasing the tone. This in turn can help get rid of wrinkles on the face, making the skin look tighter, firmer and younger.

However, it does not in any way make you young – it only makes you *look* young. It is in no way the fountain of youth, though it is portrayed to be so. The injections are administered under the skin and can be quite expensive.

The choice whether botox is for you is up to you. Instead, why not try a healthy diet with plenty of exercise instead? You might be surprised how good you look with that!

# Low Blood Sugar Levels? Here Is What YOU Do!

In healthy individuals, blood sugar levels always remain within the normal range of 80 – 120 mg/dL throughout the day, irrespective of food consumption or activity. This is because glucose is released from the liver and muscles when the body needs it. However, if you are suffering from diabetes and have been taking treatment for it, you would know that missing meals or taking too much insulin or too many tablets can cause the blood sugar levels to drop to a dangerously low level. Such a situation is called hypoglycemia. Hypoglycemia requires urgent treatment as low blood sugar levels can have an impact on the functioning of the brain and other vital organ systems. Let's take a look at this in a bit more detail.

## What is Hypoglycemia?

Hypoglycemia is defined as a blood sugar level of less than 60 mg/dl on a blood test. The normal *fasting* blood glucose levels lie between 60 to 100 mg/dl. It is maintained at this level by the food that we eat at meal times and by the secretion of insulin from the pancreas into the bloodstream. In patients with diabetes, missing a meal can result in the blood sugar levels dropping remarkably low. In addition, if a patient misses a meal and still takes the medication required for diabetes such as tablets or insulin, this can drop the blood sugar levels dangerously low. This requires urgent treatment.

## Symptoms of hypoglycemia

Symptoms of low blood sugar can include sweating, blurred vision, shaking of the hands (tremors), irritability, headache and altered consciousness levels (feeling drowsy). In more advanced cases, patients may lose consciousness, suffer from fits or seizures, can develop weakness of their arms or legs (like a stroke) and may go into a deep coma. Low blood glucose levels can also affect the heart and can cause irregular heartbeats and damage to the heart muscle from a heart attack.

A worrying aspect of low blood sugar levels is them dropping to dangerously low levels when driving. This can increase the chances of suffering from a road traffic accident.

## Managing low blood sugar levels at home



If your blood sugar levels are low and you are experiencing symptoms similar to what have just been described, it is essential to receive some form of treatment immediately. Below are some steps that you or a family member can take to bring the blood glucose levels up immediately.

1. Stop what you are doing and find a safe place to sit down or lie down.
2. Always carry sugary sweets or biscuits in your pocket or your purse. Pop this into your mouth immediately if your blood sugar levels are low.
3. If you do not have any sweets, take two spoons of sugar immediately. This can be powdered sugar (glucose powder) or granulated sugar.

4. Fruit juice or sugary soft drinks such as Coca – Cola are helpful as well. A glass of that should be sufficient.
5. Toast with jam can also bring the blood glucose level up as well.
6. Rest until you feel better. You may need a bit more sugar if your symptoms do not subside after 15 – 20 minutes.

**If blood glucose levels remain low despite the above measures, then it is essential that you see a doctor as soon as possible. Do not attempt to treat a very drowsy or unconscious patient at home. Take them to hospital immediately.**

Hypoglycemia is an important aspect of diabetes management. Manage it well and take your treatment as prescribed and your diabetes will be controlled for life!!

## Risk Factors for Hypoglycemia

- Poor absorption of glucose from the gut (called malabsorption)
- Excessive physical activity
- Insufficient food intake
- Alcohol intake
- Injection into sites where fat has accumulated from repeated insulin injections (called lipohypertrophy)
- Drug interactions with the diabetes drugs
- Poor kidney function or kidney failure
- Error in prescription of insulin

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## Did You Know?

**Women Are As Likely As Men To Develop Heart Disease!**

The incidence of heart disease is **rapidly** rising amongst Indian Women.

This increase is closely related to

- ✓ High Cholesterol
- ✓ High Blood Pressure
- ✓ Obesity
- ✓ Diabetes Mellitus
- ✓ Smoking
- ✓ Family History
- ✓ Domestic and work related stress
- ✓ Lack of exercise
- ✓ Oral Contraceptive Pills



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