

Get rid of lactose intolerance, make the cow friendly

STAR HEALTH DESK

About 70 per cent of the world's population just cannot drink milk or eat dairy products (except yogurt) without getting an upset stomach. It is due to genetic factors. It's caused by a deficiency of lactase, an enzyme needed to absorb and digest the milk sugar, lactose. Undigested, the milk sugar lingers in the colon and ferments, creating intestinal distress like abdominal pain, bloating, gas and diarrhea that sometimes defies diagnosis or is misdiagnosed as serious bowel disease.

So do not believe that you have a serious bowel disorder until you are sure milk is not at fault. How much upset milk causes depends on the severity of your lactase deficiency. A research says that 60 to 80 per cent of those with lactose intolerance can still drink a single glass of milk without distress. One study found that normal people absorbed 92 per cent of milk's lactose; those with lactose intolerance absorbed only 25 to 58 percent.

What is lactose anyway?

When someone is said to be lactose intolerant this is because the digestive system of this individual is not able to break down completely the sugar found in milk called LACTOSE. This inability results from a shortage of the enzyme lactase, which is

Lactose is simply a sugar found in milk. Any sort of milk produced by the human being or animals contains lactose. The sugar we mix with our coffees or teas comes generally from the sugarcane and this sugar is called sucrose. On the other hand sugar we find in fruits is called fructose and sugar that is used in the brewing of barley, wheat and oats is called maltose. Our body needs sugar as it is the source of fuel we need to for example to move our muscles or to simply be able to read this message. However, the only sugar our body is able to burn is called glucose; therefore all other sugars that enter our system have to be converted into glucose. This can only be done by the help of enzymes produced by our body that are able to biochemically convert what ever sugar into glucose.

What causes lactose intolerance?

When someone is said to be lactose intolerant this is because the digestive system of this individual is not able to break down completely the sugar found in milk called LACTOSE. This inability results from a shortage of the enzyme lactase, which is

produced by the cells that line the small intestine. Hence it is termed Lactase Deficiency.

In a normal digestive system all the food we eat is broken down into smaller and simpler bits and pieces in an easy way to say it. This helps the body to absorb the food and take out the proteins and what ever is needed to maintain itself. Lactase breaks down milk sugar (lactose) into the simpler form of sugar called glucose that can then be absorbed into the bloodstream. When lactase is missing or there is not enough of it to digest the lactose consumed, the results may be very distressing for the person. While not all persons deficient in lactase have the same symptoms if at all, those who do are considered to be lactose intolerant.

So now we know that lactose intolerance is caused by the inability of the digestive system to break down lactose into glucose. We also know that the protein (enzyme) responsible to break down lactose into glucose is called lactase. Therefore, the lack of lactose causes lactose intolerance. However, different persons may have different amounts of lactase produced. Some of the causes of lactose intolerance are known. The production of the enzyme lactase can be hindered by certain digestive diseases and injuries to the small intestine. In some cases, children are born without the ability to produce lactase. However, in most cases lactase deficiency develops naturally over time when after about the age of 2 years, the body begins to produce less lactase. Interestingly, most people do not experience symptoms until they reach an older age.

The intolerance test: How to tell if the cow is unfriendly

If you suspect that you may be lactose intolerant, stop drinking any milk or eating any dairy products for at least two weeks. Be sure to check processed foods for hidden sources of dairy products. Whey, for example, has more lactose than any other food and it is frequently added to processed foods. So is dry milk.

If you feel better and the

gastrointestinal symptoms have diminished you can do a "challenge" or "reintroduction" test to try to determine how much of which dairy foods you need to avoid. Drink a little milk or eat a little cheese and wait for two or three days to see what happens. It may take that long for symptoms of lactose intolerance to show up, say experts. Your physician can also give you more definitive tests to diagnose lactose intolerance, including blood tests and a simple breath-hydrogen test.

What are the symptoms of lactose intolerance?

The symptoms listed below are caused by the fermentation of lactose. Since lactose is not broken into glucose and hence left unabsoed by the body, the perfect conditions found in the intestines help the lactose to ferment and this leads to the formation of gases. A particular gas is methane that is usually the cause for the pain and aggressive flatulence. Common symptoms include nausea, cramps, bloating, gas and wind diarrhea, which may begin from after half an hour to 2 hours after eating or drinking foods containing lactose. Persons who suffer from lactose deficiency and do not avoid lactose may suffer from weight loss and malnutrition. The severity of symptoms varies depending on the amount of lactose each individual can tolerate. Some of the symptoms may be similar to those of milk allergy but milk allergies can cause the body to react quicker, more often within a few minutes.

What treatments are available to control symptoms?

Fortunately, lactose intolerance is relatively easy to treat. No known way exists to increase the amount of lactase enzyme the body can make, but symptoms can be controlled through diet. Small children born with lactose deficiency should not be fed any foods containing lactose. Older children and adults need not avoid lactose completely, but individuals differ in the amounts of lactose they can handle. For example, one person may suffer symptoms after drinking a small glass of milk, while another can

drink one glass but not two. Others may be able to manage ice cream and aged cheeses, but not other dairy products. Dietary control of the problem depends on each person's knowing, through trial and error, how much milk sugar and what forms of it his or her body can handle.

How is lactose intolerance treated?

Fortunately, lactose intolerance is relatively easy to treat. No treatment can improve the body's ability to produce lactase, but symptoms can be controlled through diet.

Young children with lactose deficiency should not eat any foods containing lactose. Older children and adults need not avoid lactose completely, but people differ in the amounts and types of foods they can handle. For example, one person may have symptoms after drinking a small glass of milk, while another can drink one glass but not two. Others may be able to manage ice cream and aged cheeses, such as cheddar and Swiss, but not other dairy products. Dietary control of lactose intolerance depends on people learning through trial and error how much lactose they can handle.

A nutrition balancing act

Milk and other dairy products are a major source of nutrients in our diet. The most important of these nutrients is calcium. Calcium is needed for the growth and repair of bones throughout life, and in the middle and later years, a shortage of calcium may lead to thin, fragile bones that break easily (a condition called "osteoporosis"). A concern, then, for both children and adults with lactose intolerance is how to get enough calcium in a diet that includes little or no milk.

Although the RDA (recommended daily allowance) for calcium, set in 1980, is 800 mg per day, many experts in bone disease believe this is too low. It is suggested that women who have not yet reached menopause and older women who are taking the hormone estrogen after menopause should consume about 1,000 mg of calcium daily (roughly the amount in a quart of milk). Pregnant women and

nursing mothers need about 1,200 mg of calcium per day. Postmenopausal women not taking estrogen may need as much as 1,500 mg of calcium per day. The RDA for adult men is 1,000 mg per day and 1,500 mg per day for men in their later years.

It is important therefore, in meal planning to make sure that each day's diet includes enough calcium, even if the diet does not contain dairy products. Quite a few foods are high in calcium and low in lactose. Many green vegetables and fish with soft, edible bones are excellent examples. To help in planning a high-calcium/low-lactose diet, the following chart lists some common foods that are good sources of dietary calcium and shows how much lactose the foods contain.

Recent research has shown that yogurt may be a very good source of calcium for many lactose intolerant people, even though it is fairly high in lactose. There is evidence that the bacterial cultures used in making yogurt produce the lactase required for proper digestion.

Clearly, many foods can provide the calcium and other nutrients the body needs, even when intake of milk and dairy products is limited. Still, factors other than calcium and lactose content should be kept in mind when planning a diet. We should remember also that calcium is absorbed and used only when there is enough vitamin D in the body. A balanced diet should provide an adequate supply of vitamin D.

Some people with lactose intolerance may think they are not getting enough calcium and vitamin D in their diet. A doctor is the best person to decide whether any dietary supplements are needed. Taking vitamins or minerals of the wrong kind or in the wrong amounts can be harmful. A dietitian can help in planning meals that will provide the most nutrients with the least chance of causing discomfort.

Watch for Hidden Lactose

Although milk and foods made from milk are the only noteworthy natural sources, lactose is often



gases, including methane and carbon dioxide. These will cause the baby's intestines to inflate and there is no need to say how distressing this feeling on the baby is. Unfortunately this remains undetected and the baby is fed milk all the time. With advice from the doctor and dieticians a supplement to milk should be found, at least to see if the cause for colic is milk.

Another drawback is that lactose intolerance is misdiagnosed in most of the cases. Doctors find it difficult to pinpoint the presence of lactose intolerance and people with this condition are wrongly classified as suffering from the Irritable Bowel Syndrome (IBS). These persons are made to suffer in vain, where if they were diagnosed properly, all it takes is the avoidance of milk from their diet. This will be enough to lead them to a normal life.

Many people suffer from lactose intolerance but probably few of them realise this and remain in distress unnecessarily.

Is lactose intolerance contagious?

The answer is simply NO. These disorders are not transmitted from a person to another, nor are they transmitted through any other media (e.g., bacteria, viruses, animals).

While lactose intolerance is the inability of the person in question to produce enough lactase to break down the sugar lactose, milk allergy is caused by the inability of the immune system to learn that milk proteins are harmless for the body. None of these two irregularities are caused by an external agent, however, they can be hereditary.



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Did you know that you could manifest Hemophilia?

TAREQ SALAHUDDIN

Hemophilia is a bleeding disorder characterized by a deficiency of selected proteins in your blood-clotting system. Clotting is the process by which your blood changes from a liquid to a solid

state in order to stop bleeding.

The clotting process makes use of blood particles called platelets and clot-forming proteins called clotting factors. Your blood has 13 clotting factors, identified by Roman numerals that are involved in the clotting process.

Hemophilia occurs in three types named A, B and C depending on which clotting factor is deficient. All types can cause prolonged bleeding. If you have hemophilia and you have a cut, you will bleed for a longer time than if your blood clotted normally. Small cuts usually are not much of a problem. The greater problem is deep internal bleeding and bleeding into joints.

Hemophilia is a lifelong disease. But with medication, replacement of deficient clotting factors and proper self-care, most people with hemophilia can live an active, productive lifestyle.

Signs and symptoms

Signs and symptoms of hemophilia may include:

Many large or deep bruises

Joint pain and swelling caused by internal bleeding

Bleeding within your muscles

Blood in your urine or stool

Prolonged bleeding from cuts or injuries, or after surgery or tooth extraction

At first, because of limited mobility, a baby with hemophilia usually will not have many problems related to hemophilia. But as your baby begins to move around, falling and bumping into things, superficial bruises may occur. This bleeding into soft tissue may become more frequent the more active your child becomes. Most of the time,

these bumps and bruises are not serious and do not require medical treatment.

Emergency signs and symptoms of hemophilia may include:

Bleeding into your head, neck or digestive tract

Sudden pain, swelling, and warmth of large joints, such as knees, elbows, hips, and shoulders, and of the muscles of your arms and legs

Bleeding from an injury, especially if you have a severe form of hemophilia

Hemophilia A and B occur

almost always in boys. Generally,

hemophilia A and B pass from

mother to son through one of the

mother's genes. Everyone has

two sex chromosomes, one from

each parent. Females inherit an X

chromosome from their mother

and an X chromosome from their

father. Males inherit an X

chromosome from their mother

and a Y chromosome from their

father. The gene that causes

hemophilia A or B is located on the

X chromosome. This is why men

cannot pass along the gene that

causes hemophilia to their sons.

Most women who have the

defective gene are simply carriers

and exhibit no signs or symptoms

of hemophilia. It is also possible

for hemophilia A or B to occur

through spontaneous gene

mutation.

Hemophilia C can occur in both