

Dr. Rela Institute & Medical Centre is a multi-specialty quaternary care hospital located in Chennai, India.

The Institute is within the campus of Sree Balaji Medical College and Hospital, which is spread across 36 acres. It has 14 operating theatres with 450 beds, inclusive of 150 critical care beds.

The Institute is conveniently located 10 minutes from the Domestic and International Airport.

The hospital is designed to provide highly specialized care in various departments with a focus on multi-organ transplantation. Prof. Mohammed Rela, a world renowned surgeon in the field of Liver surgery and transplantation is the Chairman and Managing Director of the Institute.

In addition to quaternary & quality care, is also committed to provide day to day primary and secondary care to the local population, with facilities of international standards.

The Institute would provide comprehensive support to international patients travelling for medical treatment such as language assistance, stay, visa and travel.

24 Hr Emergency ☎ **044-6666 7788**



DR. RELA INSTITUTE & MEDICAL CENTRE

No. 7, CLC Works Road, Chromepet,
Chennai - 600 044, Tamil Nadu, INDIA.

Tel : +91 44 6666 7777

Email: helpdesk@relainstitute.com

www.relainstitute.com



DR. RELA INSTITUTE & MEDICAL CENTRE
An International Medical Facility



Department of
Endocrinology

Vitamin D, Calcium, & Bone Health

Vitamin D, Calcium, and Bone Health

1 Why is bone health important?

Bone is a living tissue that is constantly breaking down and being replaced. Throughout life, your body balances the loss of bone with the creation of new bone. You reach your highest bone mass (size and strength) at about age 30, usually between ages 20 to 25. After that, you begin to lose bone mass.

Over time, bone loss can cause osteopenia (low bone mass) and then osteoporosis, a condition in which bones become weak and are more likely to break (fracture). Fractures can cause serious health problems, including disability and premature death. Getting enough vitamin D and calcium is important in keeping your bones healthy and reducing your chances of developing osteopenia or osteoporosis. Regular, weight-bearing exercise also helps keep your bones strong.

2 Why are vitamin D and calcium important to bone health?

Vitamin D allows your body to absorb calcium. Calcium is necessary for building strong, healthy bones. Without enough vitamin D and calcium, bones may not form properly in childhood and can lose mass, become weak, and break easily in adulthood. Even if you get enough calcium in your diet, your body will not absorb that calcium if you don't get enough vitamin D.

3 What is vitamin D?

Vitamin D is a hormone, although most commonly known as a fat-soluble vitamin, which means it is stored in the body's fatty tissue. People normally get vitamin D through exposure to sunlight, which triggers vitamin D production in the skin.

Vitamin D is found naturally in very few foods. In the United States, it is routinely added to milk and infant formula. Other good food sources are egg yolks and some types of fish such as salmon and mackerel. Vitamin D is also available in nutritional supplements. Vitamin D is the only vitamin made by your own body. Other vitamins, like A, B, and C only come from food and

You probably don't get enough vitamin D if:

- You spend little time in the sun or use a strong sunblock
- Have very dark skin

- Are over age 50, when the body is less able to make and use vitamin D efficiently
- Have certain medical conditions such as diseases of the digestive system that interfere with fat and vitamin D absorption
- Are very overweight, because vitamin D can get "trapped" in body fat and be less available for the needs of the body

4 What is calcium?

Calcium is a mineral with many functions. Most of the body's calcium is stored in the bones and teeth where it supports their structure. Calcium mainly comes from the foods you eat.

Good sources of calcium include dairy products (milk, cheese, yogurt); calcium-fortified products (foods and beverages with added calcium); canned fish with bones; and green, leafy vegetables. Like vitamin D, calcium is also available in supplements.

You may need extra calcium if you:

- Are a post-menopausal woman
- Eat few or no dairy products or leafy green vegetables
- Have a digestive disease that interferes with nutrient absorption

Recommended Daily Intake of Vitamin D and Calcium for Adults

- Vitamin D under age 50 — 400 to 800 International Units (IU)
- Vitamin D over age 50 — 800 to 1,000 IU
- Calcium under age 50 — at least 1,000 milligrams (mg)
- Calcium over age 50 — at least 1,200 mg

Questions to ask your doctor

- How much calcium and vitamin D do I need?
- How do I know if I'm getting enough?
- Should I take a calcium or vitamin D supplement? How much should I take?
- Should I be tested for vitamin D deficiency?
- What else can I do to keep my bones strong?