

# Vitamin D

## A Champion of Pain Relief

Do you suffer from muscle, bone, or joint aches and pains? Has this lasted for a long time?

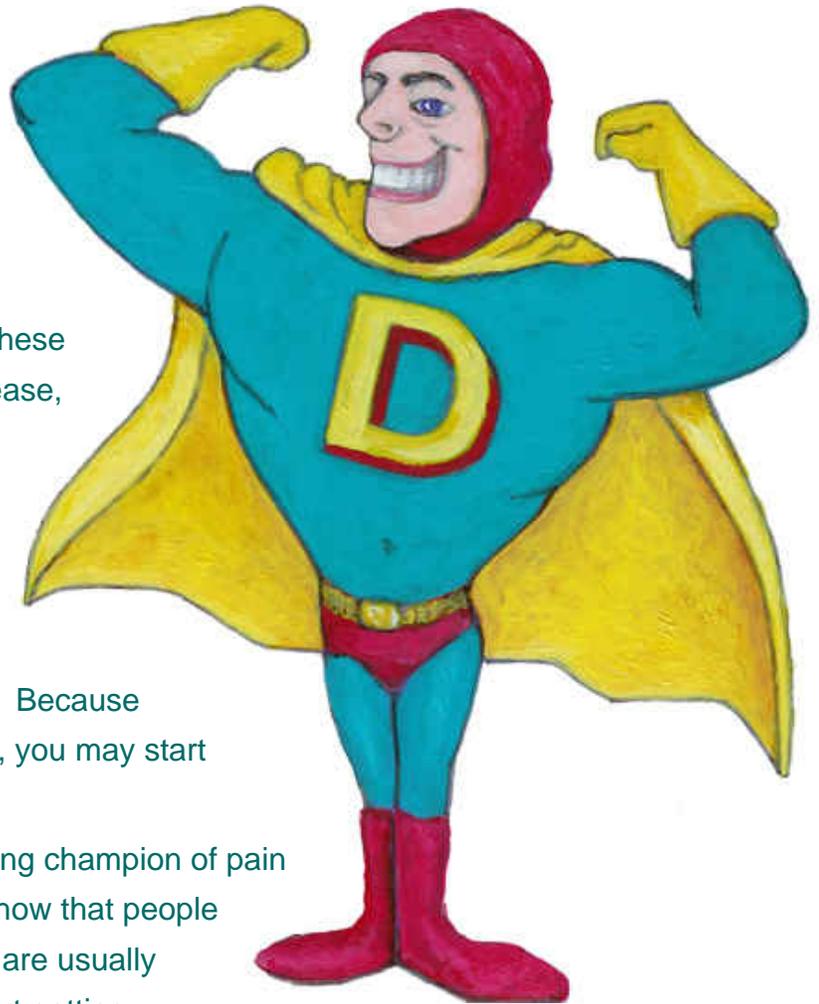
Overcoming such troubles may be as simple, safe, and inexpensive as an extra dose of vitamin D each day.

Often, there is no obvious cause for these aches and pains, such as an injury, disease, or bone problem like a slipped disk. In some persons the pain is felt all over, or it may attack only the back, neck, shoulders, hips, or knees. Muscles, may become weak and tire easily.

These problems can be hard to treat. Because the problems go on for such a long time, you may start to feel hopeless and depressed.

Help may be available from a surprising champion of pain relief. The results of medical research show that people with these long-lasting aches and pains are usually lacking in vitamin D. And, once they start getting enough vitamin D, the aches, pains, weakness, and related problems may completely vanish or are at least helped.

This brochure will answer questions you may have about vitamin D and how it can help you. Please read it carefully.



***An extra daily  
dose of vitamin D,  
the “sunshine vitamin,”  
may help to relieve muscle,  
bone, and joint aches and pains.***

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## What is vitamin D? How does it work?

Among the many vitamins that are necessary for health, vitamin D is very special. It is often called the “sunshine vitamin” because it is the only vitamin that we make in our skin when it is exposed to the sun’s rays.

Vitamin D is broken down by the liver and kidneys to form an active chemical that actually functions as a hormone. It works throughout the body in many tissues and organs, including muscles, nerves, and the brain. If you do not have enough vitamin D, muscles can ache and nerves can become irritated.

Most importantly, your body must have vitamin D in order to absorb calcium from foods. Without enough vitamin D, calcium will be in short supply, and your body will then take the calcium that it needs to function from your bones. This can make your bones less solid and weak, and they can possibly fracture.

Along with this, the outer layer of your bones can become soft and spongy. The spongy layer may expand and press against sensitive tissues covering the bones, which is painful.

This disorder is called *osteomalacia* (os-tio-ma-lay-she-ah). It can affect any bony part of the body, causing pain and soreness in one area or many.



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## What sort of pain can vitamin D help?

Because vitamin D supports healthy bones, getting an adequate amount of it can help persons with many types of bone and joint pain. It is especially helpful for back pain.

Besides these pains, medical research has shown that vitamin D may help a number of other conditions that are *chronic* – meaning that they have lasted for three months or much longer. You might consider taking some extra vitamin D if your healthcare provider has told you that you suffer from one of these conditions:

- ⚙ osteoarthritis ⚙ rheumatoid arthritis ⚙ fibromyalgia ⚙ myalgia
- ⚙ diabetic neuropathy ⚙ chronic fatigue syndrome
- ⚙ seasonal affective disorder (SAD)



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## *Where does vitamin D come from?*

As mentioned earlier, your skin makes vitamin D when it is exposed to sunshine. However, for most of us, the sun is not a good source.

For example, darker-colored skin and the skin of older persons do not make as much vitamin D from sunshine as the skin of younger or light-skinned persons. People who spend most of their time indoors, or protect themselves with clothing or sun screen lotions when outdoors, will not get enough vitamin D from sunshine. And, in most places the sun is not strong enough during cold-weather months to help the skin make vitamin D.

It also can be difficult to get the vitamin D you need from foods. Except for fatty fish and fish-liver oil, very few foods naturally contain vitamin D.

Certain foods may have vitamin D added to them by the manufacturer – that is, they are “fortified” with the vitamin. However, the amounts of vitamin D added are usually small. For example, you would need to drink 10 glasses of fortified milk or eat 17 cups of fortified cereal to get the full amount of vitamin D recommended for healthy bones.

So, it is not surprising that a great many people are lacking in vitamin D. And, research studies have found that this is especially true of persons with long-lasting pain conditions. The solution is to take Vitamin D supplements, which are tablets or capsules – pills – that you can buy.



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## *Where can I buy vitamin D?*

Vitamin D supplements are easy to find. They are available at pharmacies, health food stores, and at some regular food stores, as well as on the Internet. It is important that you buy a good quality of vitamin D from a source that you trust. If in doubt, ask your pharmacist for advice.

Vitamin D comes in two forms; D<sub>3</sub> and D<sub>2</sub>. You should buy vitamin D<sub>3</sub>, since this form works better for most people. If the product doesn't say D<sub>3</sub> on the front label, look for the name “cholecalciferol” in the list of ingredients on the back of the bottle – that's another name for D<sub>3</sub>.

Vitamin D<sub>3</sub> supplements are inexpensive. But don't be fooled by the low cost because, for many people, vitamin D eventually may work better than much more expensive pain relievers.



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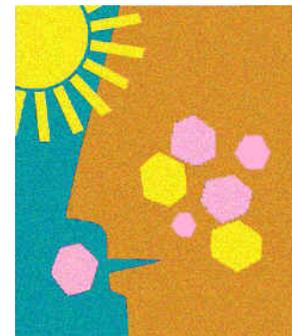
## *How much vitamin D do I need every day?*

The amount of Vitamin D<sub>3</sub> in foods or supplement pills is expressed as *International Units*, or *IUs*. According to the United States government and medical experts, healthy adults need at least 1000 IU of vitamin D<sub>3</sub> each day. This can be from exposure to sunshine, from foods, from supplements – or, a combination of all three.

However, researchers have found that persons with chronic pain conditions often need more vitamin D than other persons – up to 2000 IU of vitamin D<sub>3</sub> each day.

To start with, you should be taking a good multivitamin that has between 400 IU and 800 IU of vitamin D<sub>3</sub>. This also will provide basic amounts of other vitamins and minerals, plus some calcium.

To this multivitamin, a vitamin D<sub>3</sub> supplement pill should be added. For example, if your multivitamin contains 600 IU of vitamin D<sub>3</sub>, taking a 1000 IU supplement pill will provide a total of 1600 IU each day. If you think that you need more than 2000 IU of vitamin D<sub>3</sub> each day for pain relief, talk to your healthcare provider before taking more on your own.



### **⚠ Warning**

*Do not take more than 2000 IU of vitamin D<sub>3</sub> each day without first talking to your healthcare provider.*

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## *Should I be taking added calcium?*

Your body needs an ample supply of calcium each day for bone health and for many other important functions. Getting enough vitamin D will help you to better use the calcium that is already available in the foods that you eat.

Older persons and those at risk for osteoporosis – a disease causing the bones to become weak and fragile – often need added calcium. However, too much calcium is not good, and it can lead to kidney stones or other illness. So, talk to your healthcare provider before taking an added amount of calcium with your vitamin D<sub>3</sub>.

**NOTE:** Supplement pills containing both vitamin D and calcium usually do not contain enough vitamin D to be of much good and you may not need the extra calcium. For most people, it is often better to take calcium and vitamin D<sub>3</sub> supplements as separate pills to get the right amount of each – ask your healthcare provider.

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## *How soon will I feel results of vitamin D?*

Vitamin D takes time to work. It is different from other pain relievers – called *analgesics* – because vitamin D treats some possible sources of pain, not the pain itself.

Therefore, vitamin D usually doesn't provide immediate relief from aches and pains like analgesics. Rather, it can take weeks or even months before improvement is felt. In some persons, and for some types of pain, it may take up to 9 months for full effects. So, you will need some patience and to keep taking your vitamin D each and every day.

According to the medical research, even if you do not feel complete pain relief, vitamin D may still help you in other ways. These include:

- having less pain than before, or less frequent pain,
- using fewer pain pills or taking them less often,
- feeling in a better mood – being less depressed or nervous,
- having less fatigue and more energy,
- gaining an overall feeling of well-being.

You will need to watch closely for these other good effects. They may come about slowly and you may not notice them at first.



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## *Should I stop all other treatments for pain?*

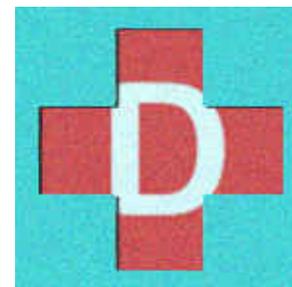
**No.** Do not stop any other treatments for your pain without talking to your healthcare provider first. While vitamin D slowly does its work, it can be helped along by pain medicines, physical therapy, or other treatments that have been prescribed for you.

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## *Is vitamin D safe with other medicines?*

Generally, yes. However, some medicines can prevent vitamin D from working as well as it could. If you know that you are taking any of the following, talk to your healthcare provider before you start taking vitamin D supplements:

- ⚙ anticonvulsants ⚙ medicines for HIV/AIDS ⚙ barbiturates
- ⚙ corticosteroids or glucocorticoids ⚙ digitalis or digoxin
- ⚙ hydroxychloroquine ⚙ rifampin ⚙ thiazide diuretics



## If I have other illnesses can I take vitamin D?

Certain illnesses or physical disorders may prevent your body from digesting vitamin D or using it properly. Before starting vitamin D supplements, you should talk to your healthcare provider if you have any of the following:

- ⚙ liver or kidney problems
- ⚙ kidney stones
- ⚙ irritable bowel syndrome
- ⚙ Crohn's disease
- ⚙ celiac disease

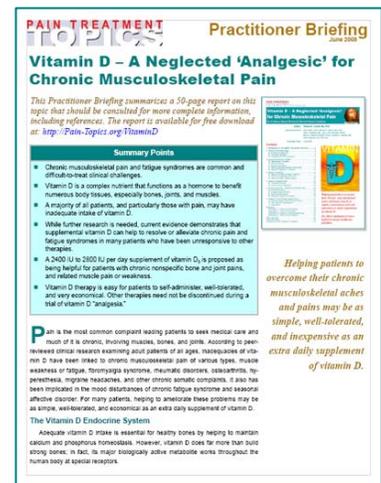
Also, if you have had gastric bypass surgery, are overweight, smoke tobacco, or drink excess alcohol you may need extra vitamin D.

**⚠ Note:**  
*Always tell your healthcare provider about all supplements that you are taking or plan to take.*

## Is there information on vitamin D that I can share with my healthcare provider?

It is well known that vitamin D is needed for good health, but it is not always thought of as being able to help with daily aches and pains. *Pain Treatment Topics* has prepared a special 7-page paper for healthcare providers on vitamin D. It explains the latest research on how vitamin D can help patients with conditions that involve long-lasting aches and pains. This is available free of charge on the Internet, so you can download and print it for your healthcare provider, or tell him/her about where to get it.

It is called: **PRACTITIONER BRIEFING:**  
**Vitamin D – A Neglected ‘Analgesic’ for Chronic Musculoskeletal Pain”**  
and it is available at: <http://Pain-Topics.org/VitaminD>



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