CONDITION

Scurvy

Scurvy is severe vitamin C deficiency that weakens blood vessels, gums, skin, bones, and wound healing.

WHAT IT IS
Severe vitamin C deficiency affecting connective tissues

BODY SYSTEM
Skin, gums, blood vessels, bones, and blood

MAIN SYMPTOMS
Fatigue, easy bruising, bleeding gums, leg pain

WHAT CAUSES IT
Prolonged inadequate vitamin C intake or absorption

HOW IT IS DIAGNOSED
Blood vitamin C testing plus clinical assessment

MAIN TREATMENT
Vitamin C replacement and a vitamin C-rich diet

CAN IT BE CURED?
Yes - replacing vitamin C usually reverses it

IS IT AN EMERGENCY?
Sometimes - heavy bleeding or fainting needs emergency care

LONG-TERM OUTLOOK
Usually full recovery when deficiency stays corrected

Overview

Scurvy is a condition caused by severe, prolonged vitamin C deficiency. Vitamin C, also called ascorbic acid, is an essential nutrient. Your body cannot make it, so you must obtain it from food or supplements.

Vitamin C helps your body make collagen. Collagen is a protein that supports skin, gums, blood vessels, bones, cartilage, and wound healing. Vitamin C also helps with iron absorption and several other body processes.

When vitamin C levels remain very low, small blood vessels become fragile and tissues do not repair themselves normally. This can cause bruising, gum changes, leg pain, poor wound healing, and anemia. Anemia means having too few healthy red blood cells to carry oxygen.

Scurvy is treatable. Symptoms often begin to improve after vitamin C is replaced, although complete recovery can take longer. It is also important to find out why the deficiency developed so that it does not return.

Symptoms

Early symptoms may be vague and can resemble many other conditions. They may include tiredness, weakness, irritability, reduced appetite, and general aches.

As the deficiency continues, more characteristic symptoms can develop:

Bleeding can occur beneath the skin, inside muscles, or around joints. This may make walking painful. Gum symptoms may be less obvious in people who have no natural teeth.

In babies and children, scurvy can affect growing bones. A child may be irritable, have swollen or painful legs, or avoid standing and walking because movement hurts. These signs need prompt medical assessment.

These symptoms are not specific to scurvy. Bleeding gums, bruising, fatigue, and leg pain can have other causes, including blood disorders, medicines, dental disease, and other nutritional deficiencies.

- Bruising easily or developing bruises without a clear injury
- Small red or purple spots around hair follicles, especially on the legs
- Coiled or "corkscrew" body hairs
- Swollen, tender, or bleeding gums
- Loose teeth when gum disease is advanced
- Leg, muscle, or joint pain
- Swelling in the legs
- Slow wound healing or wounds reopening
- Pale skin, shortness of breath, or reduced stamina from anemia

Causes and risk factors

Scurvy develops when the body receives too little vitamin C for a prolonged period. The body stores only a limited amount, so symptoms can eventually appear when intake remains extremely low.

Vitamin C is found in many fruits and vegetables. Important sources include citrus fruit, berries, kiwifruit, peppers, tomatoes, broccoli, cabbage, and potatoes. Storage and prolonged cooking can reduce the vitamin C content of some foods.

Scurvy is more likely when a person eats a very restricted diet. Reasons can include food insecurity, difficulty shopping or cooking, alcohol or drug dependence, social isolation, or relying on a narrow range of processed foods.

Some people avoid many foods because of sensory sensitivities, fear of choking or vomiting, allergies, digestive symptoms, or an eating disorder. Conditions such as avoidant/restrictive food intake disorder can lead to serious nutritional gaps even when enough calories are eaten.

Other factors that can raise the risk include:

Scurvy is not inherited and is not contagious. It does not result from a single day or brief period without fruit and vegetables.

- Conditions that reduce nutrient absorption from the intestine
- Long-term vomiting or severe loss of appetite
- Higher nutritional needs during pregnancy or breastfeeding
- Smoking, which increases vitamin C requirements
- Kidney disease treated with dialysis
- Older age combined with a limited diet or difficulty preparing food

Diagnosis

A clinician will ask about your symptoms, usual diet, health conditions, medicines, alcohol use, and access to food. A mouth, skin, hair, joint, and general physical examination may show a pattern that suggests vitamin C deficiency.

A blood test can measure vitamin C. A low result supports the diagnosis, but recent meals or supplements can affect blood levels. Testing vitamin C inside white blood cells may better reflect body stores, but this test is not widely available.

Other tests may be needed because scurvy can resemble other conditions. These may include a full blood count to look for anemia, iron and folate tests, clotting tests, and checks for other nutritional deficiencies. Imaging may be used when a child has severe bone pain or when another cause of pain is possible.

Diagnosis is based on the whole picture: symptoms, examination findings, dietary history, test results, and improvement after vitamin C is replaced. Treatment may begin before a specialist

test result returns when the clinical evidence is strong.

Treatment and management

The main treatment is vitamin C replacement. This is usually taken by mouth. The amount and length of treatment are chosen according to factors such as age, symptom severity, absorption problems, and whether the person can eat normally. People who are very unwell or cannot absorb or take oral treatment may need care in hospital.

Food is also an important part of recovery. A varied diet containing regular sources of vitamin C helps rebuild and maintain body stores. A dietitian can suggest practical options when cost, disability, sensory needs, allergies, swallowing problems, or digestive symptoms limit food choices.

Treatment also addresses related problems. This may include dental care for gum or tooth damage, wound care, treatment for anemia, or replacement of other missing nutrients. Severe anemia or significant bleeding may need hospital treatment.

The cause of the restricted intake needs attention as well. Support may involve mental health care, treatment for an eating disorder, help with alcohol dependence, social support, or assessment for an intestinal absorption problem.

Do not assume that bruising or bleeding is scurvy and treat it only with supplements. These symptoms can have other important causes. Very large amounts of vitamin C can also cause digestive side effects and may not be suitable for everyone.

Complications

Without treatment, fragile blood vessels may continue to leak blood into the skin, muscles, joints, gums, or other tissues. Pain and swelling can make movement difficult.

Possible complications include:

Many complications improve after vitamin C is replaced. Some damage may not fully reverse. For example, a tooth that has already been lost will not grow back, and a wound may need separate treatment even after the deficiency is corrected.

- Significant anemia from bleeding and reduced iron absorption
- Poor healing of wounds or surgical sites
- Gum damage, loose teeth, and tooth loss

- Reduced mobility because of muscle or joint bleeding
- Bone and growth problems in children
- Severe internal bleeding in advanced cases

Prevention

Scurvy can usually be prevented by regularly eating foods that contain vitamin C. Fresh, frozen, and some canned fruits and vegetables can all contribute. A varied diet is more reliable than depending on one particular food.

If you cannot eat a broad range of foods, a clinician or dietitian can help identify realistic alternatives. Supplements may be appropriate for some people with persistent dietary limits, increased needs, or absorption problems, but they do not replace assessment of the underlying reason.

Practical support can be as important as nutritional advice. Help with food costs, shopping, meal preparation, dental problems, swallowing, or mental health may prevent the deficiency from returning.

People receiving dialysis or living with a condition that affects absorption should follow the nutrition advice given by their healthcare team. Taking extra vitamin C without guidance is not always appropriate in these situations.

Living with it and what to expect

Tiredness, pain, and appetite may begin to improve within days of starting effective treatment. Bruising, gum changes, and skin findings usually take longer. Anemia, wound healing, and hair changes may improve over several weeks or months.

The exact pace is not the same for everyone. Recovery may be slower when deficiency was severe, when bleeding caused major anemia, or when another health condition affects eating or absorption.

Most people can return to their usual activities as their strength and pain improve. Temporary changes to work, school, exercise, or walking may be needed when leg pain or anemia is significant.

Follow-up may include repeat blood tests and a review of eating patterns. This is routine rather than emergency care. Its purpose is to confirm recovery, check for other deficiencies, and make sure the underlying cause is being addressed.

Scurvy can return if vitamin C intake becomes very low again. Long-term recovery therefore depends on maintaining a reliable source of vitamin C and continuing any support needed for restricted eating, food access, or poor absorption.

When to get medical help

Arrange a medical appointment if you develop unexplained easy bruising, bleeding gums, unusual skin spots, poor wound healing, persistent fatigue, or leg pain. This is especially important if you eat very few fruits and vegetables or have a condition that affects nutrient absorption.

Seek prompt medical advice if a child has unexplained limb pain, swelling, bleeding, or suddenly avoids standing or walking. Children need assessment because bone pain and reduced movement can have several causes.

Contact a healthcare professional promptly if symptoms are worsening, prescribed replacement is not helping, or eating remains very restricted. Routine follow-up is also important after treatment to make sure the deficiency has been corrected.

Call emergency services for:

These symptoms do not prove that scurvy is the cause, but they can signal serious bleeding, severe anemia, or another emergency.

- Heavy bleeding that does not stop
- Vomiting blood or passing black, tar-like stools
- Fainting, confusion, or difficulty staying awake
- Severe shortness of breath or chest pain
- Sudden severe weakness with signs of significant bleeding

Common questions

Can you get scurvy even if you eat enough food?

Yes. A diet may provide enough calories while containing very little vitamin C. This can happen when someone eats only a narrow range of foods. Poor absorption can also cause deficiency despite an apparently adequate diet.

How long does it take to get scurvy?

Scurvy generally follows weeks to months of extremely low vitamin C intake, not a brief

change in diet. The timing is influenced by previous body stores, nutritional needs, smoking, illness, and absorption.

Will eating oranges cure scurvy?

Vitamin C-rich foods are part of treatment and prevention, but established scurvy should be medically assessed. Replacement supplements are often used to correct deficiency reliably, while the cause and any complications are evaluated.

Are bleeding gums always a sign of scurvy?

No. Gum disease, brushing technique, medicines, and blood or clotting conditions can also cause bleeding. Scurvy becomes more likely when gum changes occur with a severely restricted diet, bruising, characteristic skin changes, or poor wound healing.

Is scurvy contagious or inherited?

No. Scurvy results from inadequate vitamin C intake or absorption. It cannot spread between people and is not passed down through genes.

Can scurvy come back after treatment?

Yes. It can return if vitamin C intake again becomes very low or if an absorption problem continues. A sustainable food plan and treatment of the underlying cause reduce this risk.

Sources

- National Institutes of Health Office of Dietary Supplements - Vitamin C: Fact Sheet for Health Professionals
- MSD Manual Professional Edition - Vitamin C Deficiency
- National Center for Biotechnology Information, StatPearls - Vitamin C Deficiency
- Magiorkinis E, Beloukas A, Diamantis A. "Scurvy: Past, present and future." European Journal of Internal Medicine . 2011;22(2):147-152.
- Léger D. "Scurvy: Reemergence of nutritional deficiencies." Canadian Family Physician . 2008;54(10):1403-1406.