

Growth Hormone Is One Important Hormone

Growth hormone is a powerful substance. You would probably guess that growth hormone helps the body grow and develop, especially during childhood and teenage years. But as we get older, it does many things to help the body stay healthy. Here are some of the ways growth hormone helps to keep the body working well:

- Adds strength to bones
- Breaks down fats and controls cholesterol levels
- Controls moods and emotions
- Gives the body energy
- Helps the heart function
- Improves metabolism
- Keeps arteries healthy
- Maintains normal muscle mass

So you see, this hormone plays a key role in keeping many areas in our body running properly. Yes, growth hormone is one important hormone throughout our life, whether young or old.

For More Information

American Association of Clinical Endocrinologists
(www.aace.com)

Provides information about endocrine disorders and helps you locate an endocrinologist in your area.

The Hormone Foundation (www.hormone.org)

Addresses general questions about various pituitary tumors, medical treatments, and hormone replacement therapy.

MEDLINEplus® Health Information
(www.medlineplus.gov)

Has a medical encyclopedia that contains facts about pituitary disorders in general.

National Institute of Child Health and Human Development (NICHD) (www.nichd.nih.gov)

Conducts research on the various processes that determine and maintain the health of individuals, families, and populations.

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) (www.niddk.nih.gov)

Provides links to national organizations serving patients concerned about endocrine and metabolic diseases.

Pituitary Network Association (www.pituitary.org)

Provides information about ongoing clinical trials, medical resources and terminology, and links to other organizations.



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Living with ADULT GROWTH HORMONE DEFICIENCY

*Restore the Balance
Improve Your Outlook*



Growth Hormone Deficiency Isn't a Life Sentence

The **pituitary gland** is a pea-sized structure found at the base of the brain. One of its many jobs is to make enough growth **hormone** to keep the body healthy. Growth hormone **deficiency** happens when the pituitary gland does not make enough growth hormone. Children with this condition who are not treated grow slowly and become very short adults. As adults, we are no longer growing in height, but growth hormone is still working in our bodies. It keeps our bones, muscles, and heart healthy. It works with the brain to control our emotions. Adults who lack growth hormone may have serious health problems.

If you are diagnosed with growth hormone deficiency, you are not alone. Thousands of adults in the United States have this condition. The good news is that growth hormone deficiency is very treatable. You will need to work with an **endocrinologist** to restore the levels of growth hormone in your body. Treatment can help you feel better and improve your outlook on life!

*“I was always tired. Now,
I have the energy to live!”*



Adults Need Growth Hormone, Too!

Doctors have known about growth hormone deficiency in children for a long time. Because growth hormone has a great effect on height, children with growth hormone deficiency are easy to recognize and diagnose. Most are successfully treated. The harmful effects of growth hormone deficiency in adults were not fully known until the 1990s. At that time, researchers became aware that almost every tissue in the body needs growth hormone to stay healthy. Adults who don't have enough growth hormone are likely to die sooner than those who have normal levels. Most often, disease of the heart or blood vessels (atherosclerosis), or stroke is the cause of death.

Are You Low on Growth Hormone?

Growth hormone deficiency affects tens of thousands of adults in the United States. In adults, growth hormone deficiency usually starts when the pituitary gland is damaged. This can be caused by a **tumor** in the pituitary gland. It can also happen when surgery is performed to remove a tumor in the pituitary gland. Radiation used to treat head and neck cancer can cause the problem. Trauma to the head, such as from a car accident, can also lead to growth hormone deficiency. In 10% to 20% of adults with this pituitary disorder, no cause can be found.



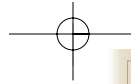
This Is Why I Don't Feel Right

When you were diagnosed with growth hormone deficiency, your first reaction might have been one of surprise because you haven't felt really sick. But you may have noticed some of these changes:

- Depression, loneliness, or anxiousness
- Easily breaking a bone
- Feeling weak and tired
- Increase in cholesterol levels
- Lack of interest in social activities
- Loss of interest in sex
- Thin and dry skin
- Trouble exercising for a long time
- Trouble lifting heavy loads
- Trouble sleeping
- Weight gain (abdominal area)

Laboratory tests are needed to determine if you have growth hormone deficiency. Your doctor may order stimulation tests. These blood tests should be done under the supervision of an endocrinologist or at a laboratory with experience in these specialized tests. If you have a pituitary tumor, you may need pictures of your brain taken with a CT scanner or an MRI.

“I don't feel good, but I don't feel sick either. I just want to feel better.”



Restoring the Balance

Growth hormone deficiency in adults can be easily treated. Therapy to replace growth hormone will help restore the hormone level in your body. Treatment is given once daily by self-injection under the skin. Your doctor will start with a small dose and will increase it until the treatment is working. You should see your doctor every 4 to 8 weeks to talk about how you are feeling. Your doctor may take a blood sample at these visits. An IGF-I (insulin-like growth factor I) test should be done to check your treatment levels. Once the right level of growth hormone is reached, you should continue to see your doctor on a regular basis (every 4 to 6 months).

It may take 6 months or longer to see the positive effects of growth hormone replacement therapy. Be determined to get well. Replacement therapy often makes patients feel better and helps them live healthy and full lives. You may also notice:

- Less body fat, especially around your abdomen
- More muscle mass
- More energy to exercise
- Improved outlook

“Get treatment and support. Talk to people.”

Treatment may cause some side effects like mild fluid retention (keeping fluids in the body), muscle aches, or joint aches. You may feel some numbness or pain in your hands. These symptoms can usually be relieved by adjusting the dose according to your doctor's instructions.



Keep at It

You will always have growth hormone deficiency, even if it is controlled with medication. This means you will need growth hormone replacement therapy for the rest of your life. Your doctor can help you stick with the treatment to keep you healthy. Here is some advice from a treated adult patient with growth hormone deficiency:

- Watch your health
- Keep regular appointments with your doctor
- Tell your doctor if you have any problems or symptoms
- Have your IGF-I level checked regularly
- Have your cholesterol levels checked regularly
- Schedule an MRI if you were diagnosed with a pituitary tumor

Many adults with growth hormone deficiency learn to take an active role in their treatment. Work with an endocrinologist and other health-care professionals to stay healthy and live longer. You'll find that you can feel better and do more. You can take back your life!

Glossary

deficiency - A shortage of substances necessary for good health.

endocrinologist - A doctor specializing in diseases of the endocrine glands and their hormones.

hormones - “Chemical messengers” that are made and released by endocrine glands and that target one or more parts of the body.

pituitary gland - Master gland of the endocrine system that produces several hormones, including growth hormone.

tumor - An abnormal growth that may be cancerous or noncancerous depending on the cell type. It may cause visual impairment or may be life-threatening depending on the location.

