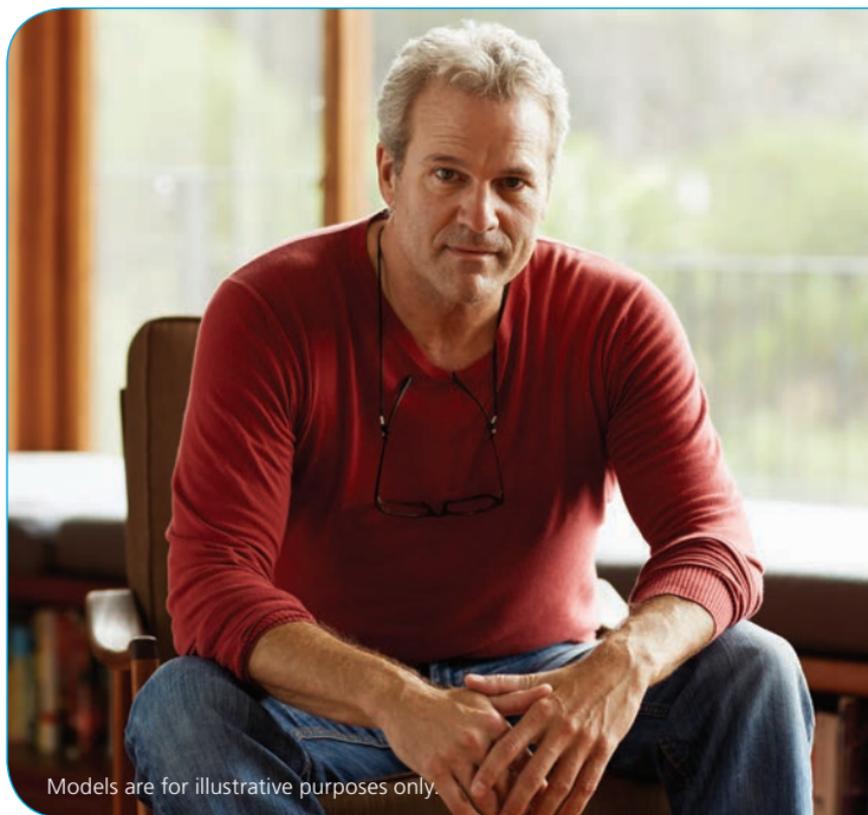


Adult Growth Hormone Deficiency (AGHD) Testing

Discussion Guide



**Important facts to help you
and your patients decide when
it's right to test for AGHD**

How to Use This Discussion Guide

This guide can help you talk to your adult patients about the importance of testing for growth hormone deficiency (GHD). Inside you will find information on what AGHD is, common symptoms associated with it, and how it is diagnosed.

What Is AGHD?

AGHD is an underdiagnosed condition. To understand AGHD, it is helpful to learn what growth hormone is. Growth hormone is a protein produced in the brain that is responsible for normal growth and development.¹ GHD is easier to detect in children than in adults. Since adults have already achieved full height and bone structure, obvious physical features may not be apparent.²

AGHD typically results in abnormalities of body composition, body fluids, muscle and bone growth, mental function, and/or heart function.^{3,4}

There are 2 types of AGHD^{1,5,6}



CONGENITAL

People with this form of GHD are born with it

Results from genetic mutations or from structural defects in the brain



ACQUIRED

People with this form of GHD are diagnosed later in life

Results from surgery, trauma, infection, radiation therapy, or tumor growth within the brain

In this discussion guide, we will focus on acquired GHD, which can either be present since birth (congenital) and go unnoticed until adulthood, or appear later in life.¹

Potential causes of AGHD

The most common causes of AGHD are damage to parts of the brain (hypothalamus or pituitary gland) due to tumors, surgery, or other traumatic brain injury.^{1,5-7}

AGHD is associated with increased death and illness^{5,8}



What Are the Symptoms of AGHD?^{3,5,9}

The following symptoms are common in people with AGHD. Talk to your patients to find out if they are experiencing one or more of these symptoms.

Brain

Decreased psychological well-being
Social isolation



Muscle

Abnormal heart function
Decreased lean muscle mass
Reduced muscle strength

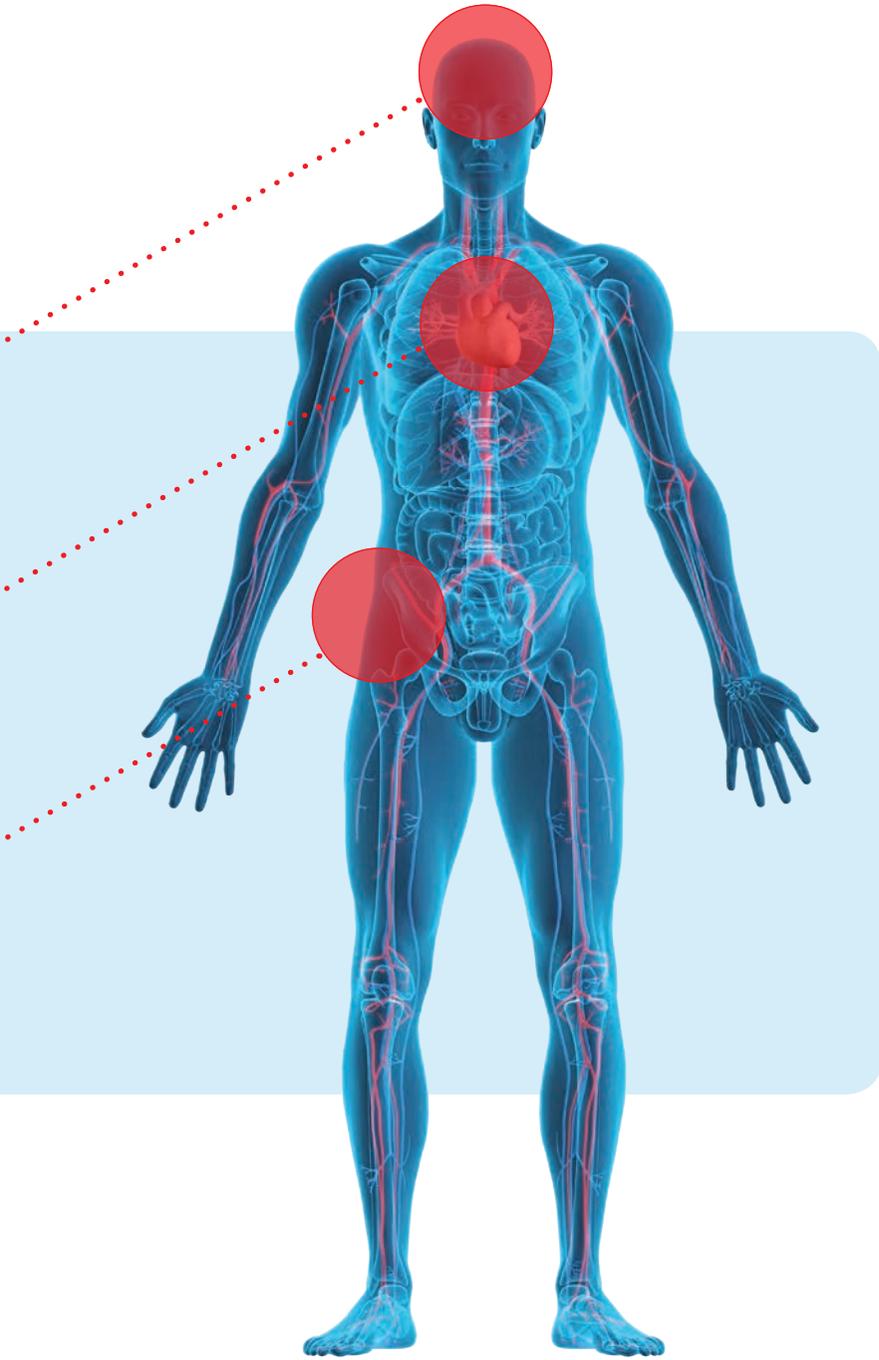


Metabolism

Increase in bad cholesterol
Increased abdominal fat
Decreased bone mineral density
Insulin resistance



Remind your patient about the importance of getting tested if they are experiencing any of these symptoms. A diagnostic test can help confirm if someone has AGHD.

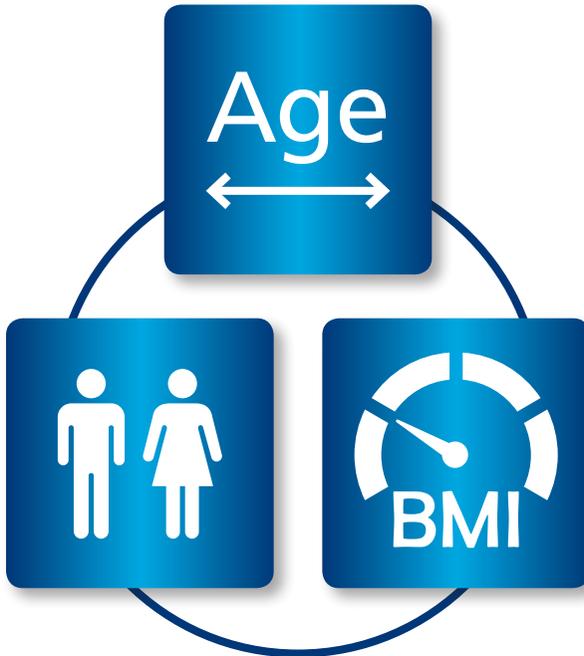


How Is AGHD Diagnosed?

Detecting AGHD can be challenging since the symptoms and obvious physical features may not be apparent. Because of this, GHD may go undiagnosed.^{1,2}

It can be difficult to measure growth hormone levels because they can often be influenced by a number of factors such as²:

- **Age**
- **Gender**
- **Body mass index (BMI)**





Measuring insulin-like growth factor 1 (IGF-1) is a standard assessment of growth hormone function; however, some people with AGHD can have IGF-1 levels within the normal reference range. If IGF-1 is within normal range, the most appropriate stimulatory test should be administered to rule out or confirm diagnosis of AGHD. A low serum IGF-1 level may confirm the diagnosis of AGHD. However a stimulation test may also be needed.¹⁰

If your patient displays any of the symptoms common with AGHD, talk to them about the different testing options available to confirm diagnosis. Together with your patient, decide which option may be best.

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