

---

<p><u>Growth hormone is a peptide hormone. It stimulates growth and cell reproduction in humans and other animals. It is a polypeptide hormone that is synthesized, stored, and secreted by the cells within the pituitary gland.</u> Somatotrophin refers to the growth hormone produced natively in animals, whereas the term somatropin refers to growth hormone produced by recombinant DNA technology.</p>	<b>1</b>
<p>Until recently, the growth hormone could only be obtained from the pituitary glands of dead people. This substance was used to treat children who did not produce enough of their own growth hormone and who would, therefore, grow up as dwarfs. The natural product was taken off the market after it was linked to a brain disease which attacked some of the children undergoing treatment with it. But now, a new synthetic growth hormone was developed which, it is claimed, has no dangerous side effects. The new drug is called „Somatrem“ and can be produced in unlimited quantities.</p>	<b>2</b>
<p>For <b>children</b> who are deficient in their own growth hormone, Somatrem is an important medical advance. The problem is that the drug may be abused by people who are not medically in need of its benefits. For example, athletes may take the drug in the belief that it will improve their physique and physical performance. Parents may want to obtain the drug for their children who are only marginally under average height. For such reasons, experts are recommending that registers be kept of Somatrem recipients. The implications of the use of Somatrem must be thoroughly understood before widespread distribution of the drug is undertaken.</p>	<b>3</b>

max.40 b., min. 24 b.

1. What is the passage mainly about?

- a) the side effects of various drugs
- b) medical use of growth hormones
- c) the abuse of hormones
- d) the problems with growth-hormone deficient children

2b.

2. According to the text, natural growth hormone was taken off the market because

- a) it was connected to a brain disease
- b) people were killed by it
- c) it didn't make people grow
- d) not enough pituitary glands were available

2 b.

3. Say whether these statements are true or false. If they are false, say what is true.

a) The synthetic growth hormone Somatrem has serious side effects. T/F

.....  
b) Somatrem can be produced in large amounts. T/F

.....  
c) Somatrem was developed mainly for professional athletes. T/F

.....  
6 b.

4. Answer these questions:

a) Until recently, where was the growth hormone obtained?

b) Can you mention any problem related to Somatrem?

4 b.

5. Transform these sentences into the passive voice.

*Example: The hunter killed the bear. → The bear was killed by the hunter.*

a) Researchers have developed a synthetic growth hormone.

.....  
b) People may abuse the drug.

.....  
4 b.

**6. Word formation: complete the boxes.**

<i>verb</i>	<i>noun</i>	<i>adjective</i>
<i>Example:</i> <i>affect</i>	<i>effect</i>	<i>effective</i>
a)		dead
b)	growth	
c) synthesise		

6 b.

**7. Look at these sentences. They should be Answers to your Questions.**

**Example:**

**Q:** *What does the peptide hormone stimulate?*

**A:** *It stimulates growth and cell reproduction in humans and other animals. (Par.1)*

a) **Q:**

**A:** It is secreted by the cells within the pituitary gland.

b) **Q:**

**A:** Somatotrophin.

4 b.

**8. Read the LAST paragraph (no. 3) again and find SYNONYMS (=words that mean the same)**

**Example:** *infants – children (see the text)*

a) lacking -

b) significant –

c) misused -

d) for instance -

e) make better -

f) slightly -

6 b.

**9. Translate the underlined part of the text into Czech/Slovak:**

6 b.

**Key:**

1. b) medical use of growth hormones

2. a) it was connected to a brain disease

(Viz Par.2: The natural product was taken off the market after it was linked to a brain disease.)

3. a) The synthetic growth hormone Somatrem has serious side effects. F  
It has no dangerous side effects (Par.2).

b) Somatrem can be produced in large amounts. T  
(Viz Par.2: Somatrem can be produced in unlimited quantities.)

c) Somatrem was developed mainly for professional athletes. F  
Somatrem was developed for children deficient in their own growth hormone. (Par.3).

4. a) Until recently, where was the growth hormone obtained?  
From the pituitary glands of dead people. (Par.2)

b) Can you mention any problem related to Somatrem?  
It can be abused by people who are not in medical need of it – e.g. by athletes. (Par.3)

5. a) Researchers have developed a synthetic growth hormone.

A synthetic growth hormone has been developed by researchers.

b) People may abuse the drug.

The drug may be abused by people.

6.

<b>verb</b>	<b>noun</b>	<b>adjective</b>
a) die	death	dead
b) grow	growth	growing
c) synthesise	synthesis	synthetic

7. a) Q: How is the growth hormone secreted?(Par.1)

A: It is secreted by the cells within the pituitary gland.

b) Q: What is the name of the growth hormone produced natively in animals? (Par.1)

A: Somatotrophin.

8.

a) lacking - deficient

b) significant - important

c) misused - abused

d) for instance - for example

e) make better - improve

f) slightly - marginally

9. Růstový hormon je peptidový hormon. Stimuluje růst a reprodukci buněk u lidí a dalších živočichů. Je to polypeptidový hormon, který je syntetizován, ukládán a vylučován buňkami v hypofýze.