The endocrine system and its hormones

Today’s menue: Human growth hormones

Have a look at the picture:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | C:\Users\di36pir\AppData\Local\Filr Storage\Meine Dateien\AK_BILI\04b_LIS aufgaben\BIOLOGIE\7\idee_GROWTH HORMONES\bildchen gemalt\final\kopie adipose tissue 1.jpeg |  | C:\Users\di36pir\AppData\Local\Filr Storage\Meine Dateien\AK_BILI\04b_LIS aufgaben\BIOLOGIE\7\idee_GROWTH HORMONES\bildchen gemalt\final\kopie adipose tissue 2.jpeg |
|  | Decrease in adipose tissue |
|  |  |  |  |
| GrowthHormone |  |  | C:\Users\di36pir\AppData\Local\Filr Storage\Meine Dateien\AK_BILI\04b_LIS aufgaben\BIOLOGIE\7\idee_GROWTH HORMONES\bildchen gemalt\final\kopie bone 1.jpeg |  | C:\Users\di36pir\AppData\Local\Filr Storage\Meine Dateien\AK_BILI\04b_LIS aufgaben\BIOLOGIE\7\idee_GROWTH HORMONES\bildchen gemalt\final\kopie bone 1.jpeg |
|  |  |  | Increase in bone growth |
| C:\Users\di36pir\AppData\Local\Filr Storage\Meine Dateien\AK_BILI\04b_LIS aufgaben\BIOLOGIE\7\idee_GROWTH HORMONES\bildchen gemalt\final\kopie liver.jpegLiver(produces IGF) |  |  |  |  |
|  |  |  |  |
|  | C:\Users\di36pir\AppData\Local\Filr Storage\Meine Dateien\AK_BILI\04b_LIS aufgaben\BIOLOGIE\7\idee_GROWTH HORMONES\bildchen gemalt\final\kopie muscle 1.jpeg |  | C:\Users\di36pir\AppData\Local\Filr Storage\Meine Dateien\AK_BILI\04b_LIS aufgaben\BIOLOGIE\7\idee_GROWTH HORMONES\bildchen gemalt\final\kopie muscle 2.jpeg |
|  |  | Increase in muscle mass |



In the picture above you can see what growth hormones can do to the body of a sportsman. In the picture below you can see the opposite effect on the left side of the picture.

Explain how a lack *(Mangel)* of growth hormones can lead to a corpulent body:

Explain…

1a) the direct influence *(direkten Einfluss)* of growth hormones on the adipose tissue *(Fettgewebe)* and

1b) the indirect influence of growth hormones on the liver

2a) What does the liver do/produce, if the receptors of the liver are full of growth hormones?

2b) What is the effect of IGF on the muscles and bones?

2c) And what is IGF? Find out by using the internet.

|  |
| --- |
| Write down your results into your school exercise booklet – and do not forget to start with the title and date on top of everything. |