Stop the world, you want to get off . . .

But could there be a medical reason that you feel like this? Something that could be put right?

If you have ever had a concussion or a worse head injury, your pituitary gland could be damaged. You could be lacking the hormones that your body needs to work properly. For example, as well as having depression, you could be suffering brain fog, weight gain, you may have lost your sex drive and fertility. You may have heart and bone problems.

You can get treatment for this and feel much better.

How?

Ask your GP for pituitary testing. If the results point to low hormone levels you will get these replaced regularly and life will be worth living again. See page 2 for details of testing

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If you have difficulty getting an appropriate test, contact Christopher Lane Trust joanna@christopherlanetrust.org.uk for information and support.

WHAT TO DO

- 1.Go to your GP. Tell him/her your symptoms. Say you think your head injury may have damaged your pituitary gland.
- 2. You should receive tests for: growth hormone, cortisol, sex hormones (LH/FSH, estradiol, testosterone), thyroxine, prolactin, IGF-1, and a few more.
- 3. These tests may or may not show up deficiencies. In any case ask for a stimulation test, i.e. a glucagon stimulation test or an insulin stress test. These two tests are designed to reveal growth hormone deficiency and also adrenal insufficiency. There is also a more recently developed test, slightly less accurate, called the macimorelin test which is also used to reveal growth hormone deficiency. The short synacthen test does not reliably detect adrenal insufficiency (i.e. cortisol deficiency) when caused by pituitary damage.
- 4.An endocrinologist may refuse you a stimulation test, saying that your pituitary scan was normal (if you had one), or that your IGF-1 levels are normal, or that your short synacthen test was normal, or that all your other pituitary hormones were normal and therefore your growth hormone must be normal too. These reasons are all mistaken. For the research see 'Four mistaken reasons' page on www.christopherlanetrust.org.uk.
- 5. If the tests show deficiencies of any of your pituitary hormones, you are entitled to receive replacement therapy which should make you feel much better.

FOR THE HIGH RISK OF PITUITARY DAMAGE AFTER CONCUSSION OR MORE SERIOUS HEAD INJURY SEE

<u>Schneider HJ et al</u>, Hypothalamopituitary Dysfunction Following Traumatic Brain Injury and Aneurysmal Subarachnoid Haemorrhage: A Systematic Review, 2007, JAMA <u>.</u>

FOR THE BENEFITS OF GH AND OTHER HORMONE REPLACEMENT, SEE

<u>Diaz JJ et al</u>, Treatment with Growth Hormone for Adults with Growth Hormone Deficiency Syndrome: Benefits and Risks Int J Mol Sci 2018. Replacement growth hormone treatment improves quality of life, helps sleep, decreases fat and increases muscle, and reduces cardiovascular risk.

<u>High, WM et al.</u>, Effect of Growth Hormone Replacement Therapy on Cognition after Traumatic Brain Injury, J Neurotrauma. 2010 Sep; 27(9): 1565–1575. Growth hormone replacement markedly improved the intelligence scores of those who took part.

The Pituitary Foundation provides all kind of information and help, clearly and simply presented https://www.pituitary.org.uk/



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