

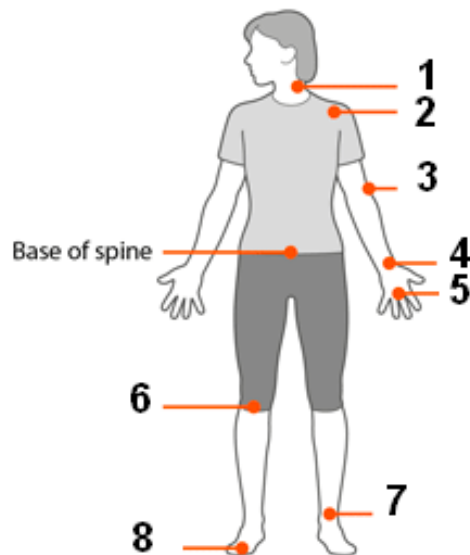
Thème 3 – Corps humain et santé

3-A – Les mécanismes de l'immunité

Bee Therapy

1. Using documents 1 and 2, explain what arthritis is.
2. What does the treatment described in document 3 consist in.

Document 1: joints commonly affected by arthritis.



Document 2: arthritis

<p>Healthy Joint</p> <p>Rheumatoid Arthritis</p>	<p>Image of arthritis in the hand.</p>
<p>Source: http://www.arthritis.org/toolkits/arthritis-pain/about-pain/inflammatory-joint-pain.php</p>	<p>Source : http://www.doctorbiehl.com/hand_pain.htm</p>

Document 3: the bee therapy

Scientists have found that bee venom can control the harmful inflammation in joints that leads to rheumatoid arthritis. They have shown the venom contains molecules that cause an increase in natural hormones in the body that regulate inflammation. This has raised hopes that bee venom can be used to develop new treatments that can help bring relief from the pain of arthritis and even prevent it from developing in the first place.

5 The findings have helped to explain anecdotal reports of how patients who undergo bee sting therapy report improvement in their condition.

Dr Suzana Beatriz Veríssimo de Mello said bee venom caused increased levels of anti-inflammatory hormones called glucocorticoids”

10 "Bee venom is a complex mixture of substances that are known to induce immune and allergic responses in humans. Nevertheless, bee venom has been used to treat rheumatoid arthritis for centuries. However, the placebo effect has been described in studies investigating bee venom anti-inflammatory properties in arthritic patients. Our data shows that bee venom prevents the development of induced arthritis in rabbits through the action of glucocorticoids."

15 **Bee Sting Therapy**, in which patients endure hundreds of stings by bees in the hope of getting better, is often used as a form of alternative medicine to treat a range of conditions such as asthma and multiple sclerosis.

The new research is the first time a scientific explanation has been shown for the effect.

Professor Alan Silman, warned that it may be some time before any clinical applications could be found.

20 "Failure to have an adequate steroid response might allow rheumatoid arthritis to take hold, so the bee venom is a way of stimulating the body's natural steroids to respond to the auto-immune processes that causes rheumatoid arthritis. However, knowing anecdotally that when some people with inflammatory arthritis are stung by bees their pain goes away for a short while is one thing; actually turning these early laboratory findings into a practical clinical application is quite another," he said



Source: <http://www.telegraph.co.uk/news/science/science-news/7856017/Bee-sting-venom-could-provide-treatment-for-arthritis.html>