Scientists use genetically-modified mice to uncover the secret to a pain-free life

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## **British researchers uncover biological secrets of a pain-free life in revolutionary study that may one day bring relief to billions of people**

British scientists claim they have found a drug which could stop humans from[suffering chronic pain.](http://www.mirror.co.uk/news/uk-news/woman-reveals-simple-bizarre-cure-6954923)

Researchers at [University College London](http://www.mirror.co.uk/all-about/university-college-london) have successfully tested a new treatment which subdues pain without carrying the terrible side effects of traditional "opoid" painkillers like morphine.

Some humans carry a mutation which prevents them feeling pain due to their body's inability to produce a chemical called Nav 1.7, which transmits pain through nerves.

The UCL team devised a drug which blocks the action of Nav 1.7 and then combines it with a low dose of opoid painkillers.

This has the effect of blocking pain while lowering the risk of addiction.

Professor John Wood said his team has already successfully tested the treatment on mice.

"We hope to see our approach tested in human trials by 2017 and we can then start looking into drug combinations to help the millions of chronic pain patients around the world," he added.

Scientists have known about Nav 1.7 for almost a decade. However, the drugs which block its effect often cause serious side effects.

People who are born without the pain-transmitting chemical do not have the ability to smell, but are not thought to suffer any other ill effect.

To test their new therapy, the UCL team bred "transgenic mice" which were genetically modified to carry the mutation which prevented humans from feeling pain.

They proved their research was applicable to humans by finding a woman who had never experienced agony.

Once she was injected with the Nav 1.7, the woman felt pain for the very first time in her life.