High-dose opiates could crack chronic pain
Powerful analgesics use native central nervous system

Arnold Freed

The sharp and effective treatment for chronic pain has long relied on

opioids, so the news is welcome. Pain sufferers have found that a very high dose of an

opioid drug that uses the same pain-relieving pathway as opioids can

work even better when compared with the standard dose—drugs, even

in a trial of studies of similar compounds, found that a dose of 20 mg

a day of oxycodone was better at reducing pain than a dose of 5 mg.

If confirmed in humans, this could provide crucial insights into the mechanisms

that allow patients to feel better when they are given much larger doses of

painkillers. The results of the study are described in Science.

"We have discovered a new effect of opioids that they are not,

only a little bit better, but at very high doses they work very

well," says Jennifer Sambamurti, a neuroscientist at the Center for the

Brain and the Motor Cortex at the University of California, San Diego.

Sambamurti and his colleagues identified in mice a new pathway

that reduces pain and decreases inflammation. They think this pathway

is not the same as the pain-killing one, and it is associated with conditions such as

the flu or head injuries.

Sambamurti says that the new stimuli changes the

central nervous system used with a single dose of the drug. It seems to

activate a system in the brain that does not normally respond to

opioids but is activated by stress or trauma.

Several studies suggest that the drug could allow patients
to reduce their dose of other painkillers, but the next step is to test

the effect in humans.

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