# Too much light at night causes depression (but if make your bedroom dark enough, you can get away with staying up late)

- **Low lights such as night lights and TVs trigger effect**
- **Dark bedrooms allow people to overcome negative effects of staying up late**
- **Lack of darkness during sleeping hours causes changes to brain**
- **Study on hamsters shows clear link to depression**

By Rob Waugh

Sleeping in a room with too much light can cause depression, psychologists claim.
Leaving the television on while you sleep can be enough to trigger the effect, say scientists.

Lack of darkness during sleeping hours can cause changes to the brain and depressive symptoms, according to animal studies.

Too much light? Leaving the television on while you sleep can be enough to trigger the effect, say scientists

Researchers believe staying up late to watch TV or go online might have the same impact on humans.

But the evidence also suggests the effects can be reversed by switching the lights off at night.

Hamsters used in the studies were exposed to dim light at night for four weeks.

The amount of lighting was equivalent to having a TV on in a darkened room.

Behavioural tests showed that hamsters exposed to light at night lacked energy and motivation.

They showed depressive symptoms, such as having less interest in sugary water which they normally enjoy.
Within two weeks of returning to a standard light-dark cycle, the hamsters appeared to have made a full recovery.

Night light: Hamsters exposed to light at night showed depressive symptoms, such as having less interest in sugary water which they normally enjoy

The findings, published in the journal Molecular Psychiatry, point to a link with rising rates of depression in humans over the past 50 years.

'The results we found in hamsters are consistent with what we know about depression in humans,' said neuroscientist Tracy Bedrosian, from Ohio State University in the US.

She added: 'The good news is that people who stay up late in front of the television and computer may be able to undo some of the harmful effects just by going back to a regular light-dark cycle and minimising their exposure to artificial light at night. That's what the results we found in hamsters would suggest.'

Hamsters exposed to round-the-clock dim light produced more of an immune system molecule in their brains called TNF, which is linked to inflammation.

Previous studies have shown a strong association between chronic inflammation and depression.

The animals also had fewer dendritic spines, hair-like growths on neurons used to send chemical messages from one cell to another.

In one experiment, hamsters were given a drug that suppresses TNF's inflammatory effects.

Even when exposed to light at night, those animals remained free of depressive symptoms. However, the drug did not prevent the reduction of dendritic spine density.