

Cialis may rival Viagra as a treatment for erectile dysfunction. The launch of Viagra, the world's first treatment for impotency, was an instant success. Now, Eli Lilly and ICOS Corporation (Lilly Icos) have tapped into the vast demand for Viagra with a new drug called Cialis, Viagra's first direct competitor.

The market for Cialis is huge - following the runaway success of Viagra. An estimated 30 million men in the US and 175 million worldwide suffer from erectile dysfunction, and only a fraction are currently using Viagra. The current Viagra market of around \$1.5bn a year could rise to total impotence drug sales of around \$6bn over the next eight years, split between Viagra, Cialis, Levitra and other second-generation treatments.

As with Viagra, Cialis is likely to be used as a performance enhancer, rather than just as treatment for an ailment. All these impotence drugs block an enzyme called phosphodiesterase 5 (PDE-5), which relaxes smooth some kinds of muscle cells and allows increased blood flow into the penis.

Cialis has key advantages over Viagra and has developed blockbuster status. Cialis is available on prescription in the UK, Germany, Denmark, Finland, Sweden, United States and Australia.

Cialis can last for two days

Cialis starts working faster than Viagra, sometimes in 16 minutes, and lasts 24 hours or more. In contrast, Viagra usually works for only four hours after an hour's delay.

As with Viagra, 80% of men with erectile function are able to achieve an erection with Cialis use and three out of four are able to achieve sexual intercourse. But in one Cialis study, 59% of previously impotent men were still able to have sex 36 hours after taking it.

The reason is that the body takes four times as long to get rid of Cialis than to eliminate Viagra. The half-life of Viagra (time for blood levels to fall 50%) is 4 hours compared to 17 hours for Cialis. That means 25% of a Cialis dose is still present in the body after 35 hours, and 12.5% after more than 50 hours. It also means that Cialis will accumulate in the body if taken regularly.

Cialis can build up in the body

Someone using one Cialis tablet every two days will find Cialis levels go on rising to reach a steady state after about a week. On day 2, when taking a second tablet around 20% of the original tablet is still in the blood stream. On day 4, 22% of a single dose will still remain. On day 6 around 24% and so on. So someone who finds a single dose still has an effect after 36 hours could in theory find that a tablet every other day enables them to have sex whenever they wish without fear of failure - assuming reasonable intervals before doing so.

Of course, other factors are important such as the possibility of more continuous or more serious side effects - after a single dose 14% experience headaches and 9% heartburn. Taking Cialis in such a way should not be considered by anyone under any circumstances without close medical supervision and advice.

In France, it has been dubbed 'Le Weekend' pill. Unlike Viagra, Cialis does not interact with food or alcohol - Viagra is best taken on an empty stomach.

Cialis for women?

As with Viagra, many will be watching to see if Cialis has a role to play in enhancing sexual function in women. In the majority of cases they are likely to be disappointed since the female sexual response is complex: there is far more to a fulfilling, satisfying and exciting sex life than mere pharmacology, and this is also important in the majority of men.

Various sources February 2003.