No doubt most will have heard of Viagra (Sildenafil).

The drug was approved in the United States in March 1998 after clinical trials had shown that 64-72% of 4,000 men with erectile dysfunction were aided by the drug.

Viagra was launched in 1998 amid unprecedented media attention. An estimated 30 million American men with ED were given new hope.

Until then, the National Institutes of Health (NIH) data showed that less than 10% of men with Ed sought medical treatment, whereas there were a record 36,000 prescriptions of Viagra within the first week of its availability.

This drug enables an erection to be maintained. It is usually taken approximately one hour before initiating sexual activity (may be taken 30 minutes to 4 hours before) and is best taken on an empty stomach and not after a fatty meal.

It is quite likely that the drug may be ineffective on the first attempt, partly due to the anxiety surrounding ED. It should only be taken once daily. It is ineffective in the absence of sexual stimulation.

Doses range from 25-, 50- to 100-mg tablets. Usual dose is 50mg.

In November 1998, the FDA issued warnings about Viagra, after post-marketing reports of serious adverse events. Revised labeling states that the drug should be used with caution in patients who have had a recent heart attack, unstable angina, stroke or life-threatening arrythmia, as well as those with significant hypo- or hypertension; also those with retinitis

pigmentosa.

Viagra has also been used in a pilot study in women with complaints of sexual dysfunction ([1]) and was found to increase orgasmic ability, pelvic sensation and vaginal lubrication.

There were no apparent adverse effects in this study, but in other clinical trials, headaches(25.4%), facial flushing (30.8%) nasal congestion (18.7%) and heartburn (10.5%) were the most common side effects ([2]).

These were reported as being dose-related and mild. In one study, 31.6% experienced one or more adverse effects. About 3% of men report seeing a strange blue tinge on the recommended dose whilst those on higher doses may lose the ability to distinguish blue from green.

There are, however, concerns as to the risks of taking Viagra if you are a smoker, overweight or suffer from heart disease or high blood pressure.

However, a recent large study, published in the *American Journal of Hypertension* found that Viagra was as effective and caused the same incidence of side effects in hypertensive men on medication, as in those who were not taking anti-hypertensive medication.

This would seem to suggest that the use of Viagra may be possible even in men with problems of high blood pressure.

Patients taking Nitrate drugs should not use Viagra. These drugs include:

- Iso-bid,
- Isosorbide,
- Nitrobid,
- GTN,
- Nitrolingual spray,
- Transderm-Nitro

- and other similar preparations.

In 1999, the FDA (Food and Drugs Administration) reported at least 69 American men taking Viagra that died between March and July of that year. Viagra can cause a precipitous drop in blood pressure sufficient to have a fatal outcome.

In Germany, fraudsters allegedly sold customers ?Viagra' pills at $55 a shot, which turned out to be peppermints dyed blue. The normal cost is around $11.(and the tablets are not peppermint flavoured!)

In the Lebanon, a plant known as Shirsh Zallouh has become so popular for its Viagra-like properties that there is concern that the plant could face possible extinction. A village physician has claimed to treat ?hundreds' of people with a 100% success rate. (presumably this was for people without health problems).

An alternative, called Vasomax (**Phentolamine**) is touted as working faster and being safer than Viagra. It was in clinical trials in 1999. The oral preparation causes vascular smooth muscle relaxation, thereby increasing blood flow to the genitals. This alpha blocker at a dose of 40mg is about 40% effective in mild ED. Adverse effects include headache, nasal congestion and facial flushing.

Gingko: the herb gingko biloba is known to have beneficial effects on circulation and may therefore be helpful in promoting blood flow in the genitals. Please remember that herbs can interact with medication and you should always check with a pharmacist or doctor before using any herb.

Gingko should not be taken if the patient is on anticoagulation medication (e.g. Warfarin) and caution should be exercised with gingko if taken in conjunction with regular aspirin intake, because gingko can significantly prolong bleeding time.

In both these situations it is possible that there will be an increased risk of bleeding, including spontaneous cerebral haemorrhage (stroke).

Gingko may also affect bleeding in surgery.

Patients on gingko should report any unusual bleeding, bruising, new onset headaches or changes in vision to their doctor and discontinue its use immediately.

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[1] Chai TC, Wong J, Berman JR reported at the American Urological Association 95th. Annual Meeting, April 2000, Atlanta, Georgia. Abstract 340. Pilot Study on effectiveness of Viagra for treatment of female sexual dysfunction: physiologic predictor of success.

[2] Moreira SG Brannigan RE, Spitz A, Orejuela FJ, Lipshultz LI, Kim ED *Urology* 2000 Sep 1; 56(3) :474-6 Side-effect profile of sildenafil citrate (Viagra) in clinical practice.