

Medications from almost every drug class may affect sexual function. However, the commonest medications involved are anti-hypertensives and selective serotonin uptake inhibitors (SSRIs) such as Prozac.

In the clinical context of chronic pain, the SSRIs are the most likely source of medication-related sexual dysfunction; they may be prescribed to treat neuropathic pain and/or depression.

Of less relevance in this clinical context are antipsychotic medications which are mentioned here for completeness.

Medications are thought to account for about 25% of reported cases of erectile dysfunction. Often medication may also adversely impact other aspects of a patient's health.

This may lead to reduced compliance with medication and subsequent overall worsening of the patient's condition. Anorgasmia (inability to achieve orgasm) is listed as an "infrequent" complication of medication, occurring in 1/100-1/1000 patients.

**Narcotics:** (morphine and related drugs): aka 'opiates'; decreased libido is a fairly common side effect and reduced potency may also occur. This is usually related to suppressed testosterone production, and may be remedied using supplemental testosterone orally or injected.

### **SSRIs;**

These are fairly new drugs and have yet to be fully investigated with regard to their effect on sexual function.

However, there may be some difficulty in assessing sexual dysfunction in patients who were initially depressed prior to commencing SSRI therapy, as they are likely to have reduced libido and possibly other types of sexual dysfunction relating to their depression.

It may therefore be difficult to compare sexual activity prior to and after SSRI therapy.

Sexual dysfunction occurs in approximately 20-40% of patients on SSRIs (reports as high as 75% have resulted from direct interviews).

The symptoms include anorgasmia, decreased libido and male erectile problems.

These problems may persist despite lowering the dose and changing to a different drug such as bupropion, nefazodone or mirtazepine may be necessary.

Alternatively, a measure such as a weekend "holiday" (SSRI taken on Thursday and not again until Sunday) may help.(this is only possible with drugs with a short half-life). Adding a second SSRI may counteract the sexual side-effects of the original SSRI.

Usually bupropion or buspirone are used given daily with the SSRI. Other agents such as cyproheptadine, sildenafil(Viagra) and dopamine agonists such as methylphenidate(Ritalin), amantadine(Symmetrel) and bromocriptine(Parlodel) may be given 1-2 hours before sexual intercourse.

Viagra has been tested in studies and may have a use in combating SSRI-related sexual dysfunction (see below for more details on Viagra).

Reversal may take place from the first dose. Benefits may be found in both men and women.

In summary, treatment option for SSRI-induced sexual dysfunction include: reassurance; decreasing the dose; changing to a different agent; altering the time of administration; drug holiday or augmentation therapy.

**Antidepressants/anticholinergic:** the 'older' type antidepressants such as the tricyclics (amitriptyline, nortriptyline) or imipramine/desipramine may be used for pain relief and tricyclics are often used to reduce incontinence due to an overactive bladder. These cause dryness of the vagina and reduction in orgasm or may affect the ability to achieve/maintain an erection. There may also be less specific effects such as loss of libido.

**Gabapentin:** the anticonvulsant (Neurontin) is often used to combat neurogenic pain. Cases of gabapentin-induced failure of orgasm have been reported. Anticonvulsants can cause sexual dysfunction. Carbamazepine (Tegretol) may cause impotence and impaired fertility.

Other relevant medication:

Antihypertensives:

Almost any antihypertensive agent may be associated with erectile dysfunction or failure of ejaculation.

This may in part be vascular damage in hypertension which can contribute to ED, the medication is undoubtedly implicated. *Thiazide diuretics* (e.g. bendrofluazide, cyclopentiazide: Navidrex, indapamide: Natrilix, xipamide: Diurexan and metazolone: metenix-5) and *beta-adrenergic antagonists* (Propranolol: Inderal; Atenolol: Tenormin; Labetolol: Trandate) are 2 commonly used drug types.

They may also be used together in some preparations e.g.: Inderetic= propranolol + bendroflumethazide.

The impotence induced by thiazide diuretics is generally reversible on discontinuing the drug.

The reported incidence of ED due to thiazides is low: between 3 and 9%. In recent years the recommended dose of thiazides has been reduced from 50-200mg to 6.25-25mg, which may

help to reduce the incidence of ED.

Propranolol is the beta-blocker drug causing most reported cases of ED. Others such as atenolol appear to have a much lower incidence of ED as a side effect.

Diuretics (water tablets)

Clonidine: may be used as an adjuvant painkiller.

H2 antagonists: e.g cimetidine or ranitidine (Zantac) used to treat indigestion

Illicit drugs: including cannabis

NB: alcohol: as Shakespeare famously wrote: "it heightens desire whilst diminishing performance!"

Smoking may also contribute to ED.

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