Some issues related to sexual dysfunction in men

Thanks to the power of modern HIV treatment (ART) many HIV-positive people in Canada and other high-income countries who are aware of their status and engaged in their care and treatment and who do not have serious co-infections, unmanaged mental health conditions or addiction, are expected by researchers to have a near-normal life expectancy. ART also has another great effect: By suppressing HIV to levels so low that they are undetectable with routine lab tests, and when people continue to take ART every day so that their viral load stays undetectable, studies have found that HIV-positive people do not pass on the virus to their sexual partners. Given these twin benefits of ART, a healthy sex life contributes to good quality of life and from time to time sexual dysfunction can be a problem for some men living with HIV. In general, there is less research on female sexual dysfunction and far less on such dysfunction in women with HIV.

In this issue of TreatmentUpdate we review key ideas about male sexual dysfunction.

Erectile dysfunction

The inability to get and maintain a firm erection is called erectile dysfunction (ED). This is one of the more common problems that all men can experience.

It is difficult to be certain how common ED is among HIV-positive men because many studies that have collected data about ED did not focus on this issue and explore it. Despite this shortcoming, studies suggest that between 50% and 60% of HIV-positive men who were surveyed disclosed that they have experienced ED. As ED can be a difficult subject to talk about, it is possible that more men have ED than have disclosed this problem in surveys.

There are many factors that can underpin ED—sometimes there may be biological reasons, other times there may be psychological reasons, and still other times there may be a combination of these two areas that underpin ED. Whatever the cause of ED in an individual, diagnosis should usually prompt a discussion between doctor and patient about it. This may lead to an investigation by the doctor and/or referral to a specialist such as a urologist, endocrinologist, psychologist, psychiatrist or others as needed.

Key risk factors for ED

ED occurs in HIV-negative men and the same risk factors that operate in that population may also affect HIV-positive men or may be accentuated in them. Below are some possible risk factors for ED.

Smoking

This is a well-established risk factor for ED.

Low testosterone levels

HIV infection can reduce levels of testosterone and other hormones. A key part of ruling out lower-than-normal levels of testosterone as a cause of ED is a blood test for this hormone.

Note that there are antibodies in the blood that bind to testosterone. Only the testosterone that is unbound is available for use by the body’s cells. This unbound testosterone is called “free testosterone.” Thus, when getting testosterone measured, specialists often request that free testosterone be assessed by laboratories.

Studies have found that HIV-positive men, whether or not they are using ART, tend to have lower-than-normal levels of testosterone (a condition called hypogonadism). This may be caused by HIV directly as HIV-infected cells produce compounds that may injure the testicles (a major source of testosterone), or it may be caused indirectly through the ongoing inflammation that is associated with HIV disease.
Abnormal lipid levels

Cholesterol and triglycerides are fatty substances (lipids) in the blood. Abnormal concentrations of these are associated with an increased risk for cardiovascular disease. Prolonged abnormal levels of lipids in association with ED suggests the possibility that problems with blood circulation are developing and possibly affecting the flow of blood to and retention of blood within the penis.

Type 2 diabetes

ED is common in males with type 2 diabetes likely because diabetes can affect circulation of blood and is associated with nerve injury.

Elevated blood pressure

It is normal to have higher-than-normal blood pressure while exercising or during stressful periods. However, prolonged higher-than-normal blood pressure can injure blood vessels and organs. Elevated blood pressure is a risk factor for ED.

Circulatory issues

Good flow of blood is necessary to achieve an erection. Not only must blood flow into the penis, it must stay there for the duration of sex. However, in cases where blood vessels are partially blocked due to cardiovascular disease, ED can occur. Injury to the penis from trauma can also affect the circulation of blood in that area.

Obesity

This is another well-established risk factor for ED.

Psoriasis

Emerging research suggests the possibility that some men who have psoriasis may be at increased risk for ED.

Psychological issues

Factors affecting mental health can affect sexual health and functioning. For instance, anxiety and depression can also contribute to ED.

Unfortunately, HIV is still a stigmatized condition and some HIV-positive men may worry about inadvertently passing the virus to their sexual partners. This and other worries can contribute to ED. Also, doctors have generally found that even if ED was ultimately triggered by biological factors, the presence of ED can then incite the development of psychological issues that play a role in prolonging ED.

Some men may also experience feelings of no longer feeling sexually desirable.

In cases where there is a psychological component underpinning ED, referral to a therapist may be useful.

Medicines

Some classes of medicines may increase the risk of ED and some even cause problems with orgasm and/or ejaculation. The following classes of drugs have been associated with ED in some men. A review with your pharmacist can help you identify if the medicines that you are using are on this list of drug classes. Note that there might be drugs/classes that are not listed that may also be linked to ED and this is yet another reason why conversations with pharmacists (in addition to doctors) are important when investigating drug side effects.

- anabolic steroids
- anti-anxiety medicines
- some antidepressants
- some antacids called histamine-2 antagonists
- some antiseizure drugs
• drugs to reduce high blood pressure
• calcium channel blockers
• some diuretics (thiazides and spironolactone)
• hormones – estrogens and corticosteroids
• recreational drugs – alcohol, cocaine, marijuana, methamphetamine

ART

There is no firm evidence that ART causes ED. This issue is explored in the following report in this issue of TreatmentUpdate. However, Italian doctors who study HIV and ED have suggested that doctors treating HIV-positive patients consider the possibility of changing a person’s HIV treatment if “ED appeared soon after starting [this treatment].”

Screening and treatment of ED

The Italian doctors also recommended that HIV-positive men receive counselling to help them reduce modifiable risk factors they may have that are contributing to ED. Such factors could include the following:

• cigarette smoking
• insufficient exercise
• obesity
• alcohol and/or other substance use

A next step is to include assessments to uncover underlying biological and hormonal risk factors (including diabetes, reduced testosterone levels, abnormal lipid levels in the blood, and so on). If such problems are found, treating them can help improve overall health and quality of life and perhaps ED.

The most common drugs to treat ED are inhibitors of an enzyme called PDE-5 and include the following:

• Cialis
• Levitra
• Viagra

One of these will usually work for ED. However, in cases where these drugs do not work, referral to a urologist for further investigation can be a useful next step. Note that these drugs can interact with some medicines and recreational substances, so a discussion with your doctor and pharmacist about possible interactions and side effects of ED treatment is necessary.

A note about diet

Observational studies suggest that diet can play a role in reducing the risk of developing ED in HIV-negative men. A longitudinal U.S. study that collected data between the years 2000 and 2008 on more than 25,000 men found that those who ate diets high in certain fruits (including strawberries, blueberries, apples, pears and citrus) had a 14% reduced risk for developing ED compared to men who did not eat such a diet. These fruits contain naturally occurring compounds that act as antioxidants and can help to reduce inflammation. When researchers focused on fruits with the highest amount of these compounds—citrus and blueberries—the risk of developing ED was reduced by 19%. These effects were most likely in men who were less than 70 years old. These findings should not be misinterpreted to mean that citrus and blueberries can stop ED or are of equivalent potency to ED treatments. Instead, these colourful fruits seem to help reduce the risk for developing ED. They are not a substitute for engaging in other aspects of healthy living (such as quitting smoking, losing weight, engaging in daily exercise and so on).

A much smaller observational study in 65 men, half of whom ate a Mediterranean-type diet (rich in whole grains, fruit, vegetables, nuts, legumes and olive oil) found that those on the diet were less likely to develop ED. Such diets have been known to reduce the risk of type 2 diabetes and cardiovascular disease; that they might have related benefits (such as on ED) is not surprising.

Since diets high in colourful fruits and vegetables have generally beneficial effects, they should also improve the
overall health of HIV-positive people and may have an impact on reducing the risk of ED in some HIV-positive men.

**Sexual dysfunction**

In addition to ED there are other forms of sexual dysfunction that can occur in men, such as reduced sexual desire or interest in sex. These problems can occur because of anxiety, depression, relationship difficulties and other issues. Loss of interest in sex can occur because of reduced testosterone levels. Some people, for many reasons, may no longer feel desirable.

Thus, in some cases, much investigation by family doctors and/or other specialists may be required to unravel and understand possible factors underlying sexual dysfunction and how to deal with them. This requires time and patience.

More research is needed to understand sexual dysfunction in HIV-positive men and ways to remedy this issue.

—Sean R. Hosein

**REFERENCES:**


Disclaimer

Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV- and hepatitis C-related illness and the treatments in question.

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