Trans people and cancer

What is Cancer?

Cancer happens when cells don't die when they should. Instead, cancer cells keep on reproducing and make more defective cells that also don't die when they should (and often don't function as they should either). This out-of-control growth can happen as a cancerous tumour (in your lungs, liver, skin, brain, etc.) or in body fluids (for example, leukemia is cancer of cells in your blood). Cancer cells can spread to other parts of the body (*metastasize*) and take over normal tissue.

Cancer is the second leading cause of death in Canada (the first is cardiovascular disease – see *Trans people and cardiovascular disease*). In 2005 it is estimated that there will be 149,000 new cases of cancer and 69,500 deaths from cancer in Canada. Based on the current rates, 38% of Canadians born female and 44% of Canadians born male will have cancer at some point in their life.

Are Trans People at Increased Risk of Getting Cancer?

Not enough research has been done to know whether trans people get cancer more than non-trans people. But there are concerns about:

- the association between social/economic marginalization and cancer
- high rates of cigarette smoking and alcohol consumption among trans people
- risk for sexually transmitted infections linked to cancer
- the long-term impact of hormone use

Additionally, the lack of trans-inclusive information and medical care means trans people aren't benefiting from cancer prevention services.

1. Social/economic marginalization and cancer

Numerous studies have documented the low social and economic status of trans people. According to the Harvard University Center for Cancer Prevention, socially and economically disadvantaged groups are at increased risk of cancer of the lung, cervix, stomach, esophagus (tube from your mouth to your stomach), larynx (voice box), liver, and bladder. The links between poverty, social marginalization, and cancer are not well understood, but are believed to be connected to stresses on marginalized people (including social isolation, often a problem for trans people), lack of access to good quality food, and marketing of cigarettes and alcohol to people living in poverty.

2. Smoking and alcohol

Many trans people use smoking and alcohol to cope with the stress of living in a transphobic society. Additionally, professional drag queens/kings and female/male impersonators who work in smoky bars are exposed to secondhand smoke.

Cigarette smoke is linked to many types of cancer, including cancer of the lung, larynx, throat, esophagus, bladder, kidney, stomach, liver, penis, and cervix, and is believed to be responsible for around 30% of all cancer deaths. Alcohol is linked to cancer of the mouth, voice box, throat, esophagus, stomach, liver, and breast. Risks are especially high for people who both drink and smoke.

3. Unsafe sex

Unsafe sex creates a risk of exposure to sexually transmitted viruses that are linked to cancer, including HIV, human papilloma virus (HPV), and Hepatitis B. Hepatitis C is also linked with cancer, but the risk of Hepatitis C transmission through sex is low. While sexual risks vary greatly from person to person, as a whole the trans community has increased incidence of many of the factors that are associated with unsafe sex – including depression, low self-esteem, relationship abuse, sex while drunk/high, and sexual abuse/assault. Also, most safe sex information isn't trans-inclusive.

4. Hormone use

Estrogen is believed to influence the development of some types of cancer (including cancer of the breast, ovaries, and lining of the uterus). The risk of breast cancer may be increased for MTFs who have taken estrogen over a long period of time. It is not known whether FTMs taking high doses of testosterone are at increased risk for estrogen-dependent cancers (the naturally occurring enzyme aromatase converts some testosterone to estrogen in FTMs).

Some risks for cancer can't be avoided (e.g., age, family history of cancer). But many risks can be reduced. You can:

- Cut down or stop smoking, and avoid secondhand smoke.
- Limit alcohol use.
- Eat a healthy diet, be physically active, and maintain a healthy weight.
- Use condoms, gloves, or other latex barriers when you have sex.
- Talk with a trans-experienced medical professional to explore your options for safer hormone therapy.

The Risk of Late Diagnosis and Treatment

The sooner cancer is found and treated, the better the chances of survival. Trans people who don't have access to good medical care or who avoid exams used to screen for cancer (e.g., Pap smear for FTMs) are at risk of cancer not being found until it has already spread. The film *Southern Comfort* tells the story of Robert Eads, who died of ovarian cancer. Many people know that when Robert was seeking emergency help for bleeding from the cancer he was refused treatment by transphobic doctors, but that is only part of the story. His close friend Maxwell wrote,

> Doctors' visits were only for renewals of his meds. He didn't have a lot of respect for the profession, and went to them only when he absolutely had to. This stubborn streak cost him in the long run, being diagnosed so late in the stages of cancer. Believe me there were signs something was wrong for a long time. He would cough up blood or have blood in his stool, but he would shrug if off. I'd harp at him and he'd say not to worry. That was his answer a lot, "not to worry bro."

Regular medical checkups with a doctor or nurse who is respectful and who understands trans medicine is important in early detection and treatment of cancer. The rest of this booklet focuses on trans-specific protocols for cancer screening.

Trans-Specific Cancer Screening Recommendations

The earlier cancer is detected and treated, the better the chances for survival. *Screening* involves looking for cancer before a person has any symptoms. By the time a person has symptoms, the cancer may have already begun to spread.

Screening recommendations are based on research about who is more likely to get certain types of cancer, environmental risk factors for cancer, and the accuracy of specific tests. Medical associations have created guidelines to help health professionals decide what tests to use, how often the tests should be done, and who should have the tests. If a screening test result is abnormal, you will likely be recommended for *diagnostic* testing to find out if you have cancer.

Many cancer screening protocols are not sex/gender-specific. For example, screening for skin cancer, colon cancer, and lung cancer is the same for women and men (trans or not). Trans people should have the same screening as anyone else for these kinds of cancers.

Some cancer protocols are sex/gender-specific based on assumptions about what body parts men and women have (e.g., screening for cancer of the breast, cervix, ovaries, prostate, penis, testicles, and uterus). It is difficult to know what to recommend for trans people. Hormones and surgery can change these body parts, and can also increase or decrease the risks of cancer. Below we go over screening recommendations for four types of cancer that have been studied in trans people.

Breast cancer (MTF and FTM)

Breast cancer is believed to be heavily influenced by exposure to the hormones estrogen and progestin. Non-trans women are therefore at much greater risk than non-trans men: 100 times more non-trans women than men get breast cancer. Breast cancer is the #1 cancer for non-trans women in Canada. The risks for MTFs and FTMs depend on hormones and surgery.

MTFs who never take estrogen or progestin have the same low risks as non-trans men. Estrogen or estrogen-progestin combinations increase the risks of breast cancer for MTFs depending on the amount taken over the person's entire life (MTFs who started hormones early in life are at greater risk than those who start late in life). Cases of breast cancer in MTFs taking hormones have been reported. There is no evidence that breast implants increase risk of breast cancer, but MTFs with implants will need to have mammograms done at a diagnostic facility rather than a screening facility (your doctor will refer you).

FTMs who do not take hormones or have surgery have the same risks for breast cancer as non-trans women. There is no clear evidence that testosterone increases or decreases breast cancer risk. Chest reconstruction reduces but doesn't totally eliminate the risk of breast cancer, as microscopic breast tissue cells remain even after surgery. Cases of breast cancer in FTMs after chest surgery have been reported.

Trans breast cancer screening recommendations

Annual chest/breast exam and regular screening mammography for:

- MTFs who have taken estrogen/progestin, are age 50+, and have other potential risk factors for breast cancer (e.g., taking estrogen/progestin for more than 5 years, family history of breast cancer, high body mass index).
- FTMs age 50+ who have not had chest surgery.

Cervical cancer (MTF and FTM)

The *cervix* is the cone-shaped neck of the uterus that sticks out into the vagina. Cervical cancer is the 9th most common cancer among BC residents born female. Cervical cancer is strongly associated with human papilloma virus (HPV), which is transmitted through sex.

Recommendations for MTFs

MTFs who have not had a vaginoplasty (surgical creation of a vagina) do not have a cervix so are not at risk for cervical cancer. Some types of vaginoplasty use the head of the penis to form a cervix; in these cases there is a risk of cervical cancer. There is also a theoretical risk of vaginal cancer after vaginoplasty, but vaginal cancer is a rare type of cancer (in both MTFs and non-trans women). There may be higher risks of vaginal cancer in MTFs who have HPV and have a compromised immune system (e.g., due to HIV).

Recommendations for FTMs

Current BC medical guidelines recommend that females under age 69 who have been sexually active have a cervical Pap smear every two years. If you have never had fingers, toys, or a penis inside your vagina, your risk for HPV (and thus cervical cancer) is very low, and your doctor/nurse may agree that a Pap smear is not necessary.

Testosterone causes changes to the cervix that are similar to early cancerous changes, so if you are taking testosterone your doctor/nurse should note this on the lab form. If you are taking testosterone but are at low risk of cervical cancer, an abnormal Pap result most likely does not mean you have a pre-cancerous condition – it's more likely just the changes from the testosterone – but your doctor may recommend further tests (another Pap or use of an instrument called a *colposcope* to look directly at your cervix) to make sure.

For FTMs who find Pap smears highly traumatic or are at high risk for cervical cancer, a total hysterectomy that includes removal of the cervix is often recommended. As with any surgery this is a highly personal decision and you should have the chance to consider the risks/benefits (see *Surgery: A guide for FTMs)*.

Trans cervical cancer screening recommendations

Pap smear at the end of the vagina (cuff) every year for:

- MTFs with history of genital warts and "penile inversion vaginoplasty" (penis turned inside out to line the new vagina), plus other risk factors (e.g., HIV).
- FTMs who have had their cervix removed but have history of cervical cancer or high-grade cervical dysplasia – after 3 normal tests, move to Paps every 2 years.

Cervical Pap smear every 2 years for:

- MTFs who have had vaginoplasty where the head of the penis was used to create a cervix.
- FTMs age 68 or younger who have been sexually active at some point in their lives, and have not had their cervix removed.

Ovarian/uterine cancer (FTM only)

Ovarian cancer is the fifth most common cancer among BC residents born female. According to the Canadian Cancer Society, it is estimated that 2,400 new cases of ovarian cancer will be diagnosed in Canada in 2005, and the lifetime probability of someone born female developing ovarian cancer is 1 in 67. Ovarian cancer is sometimes called the "silent killer" because there are usually no clear symptoms until it has spread.

"Cancer of the uterus" usually refers to cancer of the lining of the uterus (endometrium). Endometrial cancer is the fourth most common type of cancer in BC and is the most common cancer of the gynecological tract. If

endometrial cancer is found and treated early, treatment is usually successful.

Because pelvic exam is the main screening tool for both ovarian and uterine cancer, and many FTMs strongly dislike having pelvic exams, some doctors recommend removal of the ovaries, uterus, and cervix. As with any surgery this is a highly personal decision and you should have the chance to carefully consider the risks/benefits.

Polycystic ovarian syndrome (PCOS)

PCOS is a hormonal condition believed to be caused by an overproduction of insulin (see *Trans people and diabetes*), which in turn stimulates the ovaries to produce testosterone. PCOS is associated with increased risk for a number of health problems, including glucose intolerance and diabetes, heart disease (see *Trans people and cardiovascular disease*), endometrial cancer, and ovarian cancer. The main symptoms of PCOS are similar to the changes that happen when FTMs start taking testosterone:

- acne
- obesity
- growth of facial and body hair
- no menstrual period or infrequent period; infertility or reduced fertility

For reasons that are not understood, several studies of FTMs that had not taken testosterone found increased incidence of PCOS among FTMs (compared to the usual rate among people born female). For this reason, it is recommended that all FTMs not taking testosterone be evaluated for PCOS, and that FTMs taking testosterone be asked questions about any signs and symptoms of PCOS that existed before starting hormones. This can be useful in evaluating and trying to reduce risks for the health problems associated with PCOS, including endometrial and ovarian cancer.

Testosterone

There is no clear evidence that testosterone increases or decreases the risk of endometrial cancer for FTMs, but there is evidence that in FTMs taking testosterone, excess testosterone is converted via aromatase to estrogen. Without regular shedding of the uterine lining every month, estrogen can stimulate the cells of the endometrium to grow too much (*endometrial hyperplasia*); over a long period of time, this can develop into endometrial cancer. Some researchers have also speculated that FTMs taking testosterone over a long period of time may be at increased risk for ovarian cancer.

FTM ovarian/uterine cancer screening recommendations

- Pelvic exam (via one or more fingers in vagina and possibly a finger in the rectum) every year for patient with suspected PCOS, regardless of testosterone use.
- Pelvic exam (via one or more fingers in vagina and possibly a finger in the rectum) every 1–3 years for patient age 40+ or with family history of ovarian cancer.
- Investigate vaginal bleeding with trans-vaginal ultrasound, pelvic ultrasound, and/or endometrial biopsy, particularly in FTMs older than age 35.

Prostate cancer (MTF only)

Prostate cancer is the #1 cancer among men in BC. It is very rare under age 50, and risks increase after age 70. In North America, for reasons that are not understood, black men are at highest risk, with white men having medium risk and Asian men having low rates. MTFs who are not taking hormones are at the same risk for prostate cancer as non-trans men. Feminizing hormones cause the prostate to shrink, which reduces the risk of cancer, but it is not known how much the risk is reduced. There have been reported cases of prostate cancer in MTFs taking hormones both before and after genital surgery.

The standard screening tool for non-trans people born male is rectal exam (finger inserted into the rectum). The prostate is not removed as part of genital surgery but it is moved slightly forward, and the new vagina is located between the rectum and the prostate. It is not clear how this affects the usual rectal check of a prostate. Some doctors have speculated that it might be better to check the prostate through the MTF's vagina instead of via the rectum, but there is no evidence to support this.

A blood test for *prostate-specific* antigen (PSA), a protein produced by the prostate, is generally recommended if the rectal test is suspicious. MTF hormones tend to lower PSA levels, so a low PSA level is not a reliable sign of good prostate health. A high PSA should be taken as a sign to have further testing.

MTF prostate cancer screening recommendations

- Manual check (via finger in rectum) once a year after age 50.
- PSA test if you are in high-risk group or if rectal exam is abnormal.

Local Cancer Resources

Canadian Cancer Society – BC & Yukon Division
Office: 565 West 10th Avenue, Vancouver, BC V5Z 4J4
Phone: 604-872-4400 or 1-888-939-3333 (toll-free)
Email: inquiries@bc.cancer.ca
Web: http://www.cancer.ca

The Canadian Cancer Society is a non-profit community organization that aims to eradicate cancer and improve the quality of life of people living with cancer. The focus is public education, advocacy, and support for programs that provide emotional support to people with cancer and their families.

BC Cancer Agency
Web: http://www.bccancer.bc.ca/PPI
Office: 600 West 10th Avenue, Vancouver, BC V5Z 4E6
Phone: 604-877-6000 or 1-800-663-3333

The BC Cancer Agency is a government program that provides clinical and research services, including cancer prevention, screening and early detection, diagnosis and treatment services, support programs, community programs, and research and education for people in BC. BCCA operates 4 regional cancer centres, a network of 16 chemotherapy clinics and 70 pharmacies, the Screening Mammography Program and the Cervical Cancer Screening Program, information and genetic counselling to people with a strong family history of cancer, and a cancer resource centre.

Questions? Contact the Transgender Health Program:

Office: #301-1290 Hornby Street, Vancouver, BC V6Z 1W2
Phone/TTY/TDD: 604-734-1514 or 1-866-999-1514 (toll-free in BC)
Email: transhealth@vch.ca
Web: http://www.vch.ca/transhealth

The Transgender Health Program is an anonymous and confidential free service for anyone in BC who has a trans health question or concern. Services for trans people and loved ones include:

- information about trans advocacy, medical care, hormones, speech change, and surgery
- help finding health/social services, and help navigating the trans health system
- non-judgmental peer counselling and support
- information about trans community organizations and peer support groups

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For more copies, email the Transgender Health Program at trans.health@vch.ca or call/TTY 1-866-999-1514 (toll-free in BC) and quote Catalogue No. GA.100.C16.