



Trans Care

# Gender transition

## Hormones: A guide for MTFs

While there are some health risks involved with hormone therapy, it can have positive and important effects on trans people's quality of life. Knowing what you can expect will help you work with your health care providers to maximize the benefits and minimize the risks.

The purpose of this booklet is to:

- explain how hormones work
- describe the changes to expect from MTF<sup>1</sup> hormones, and outline risks and possible side effects
- give you information about how to maximize the benefits and minimize the risks

Already sure you want to start hormones? The booklet *Getting Hormones*, available from the Transgender Health Program (see last page), explains the process.

<sup>1</sup> We use "MTF" as shorthand for a spectrum that includes not just transsexuals, but anyone who was assigned male at birth and who identifies as female, feminine, or a woman some or all of the time. Some non-transsexuals (androgynous people, drag queens, bi-gender and multi-gender people, etc.) may also want hormone therapy, and may not identify or live as women. For this reason we use the term MTF instead of "trans women."

This booklet is written specifically for people in the MTF spectrum who are considering taking hormones. It may also be a helpful resource for partners, family, and friends who are wondering how hormones work and what they do. For medical professionals who are involved in prescribing hormones or are looking after the health of someone who is taking hormones, there is a detailed set of guidelines for doctors and nurses available from the Transgender Health Program (see last page).

## How Hormones Work

**Hormones** are chemical messengers produced by one part of the body to tell cells in another part of the body how to function, when to grow, when to divide, and when to die. They regulate many functions, including growth, sex drive, hunger, thirst, digestion, metabolism, fat burning and storage, blood sugar and cholesterol levels, and reproduction.

**Sex hormones** regulate the development of sex characteristics – including the sex organs that develop before we are born (genitals, ovaries/testicles, etc.) and also the secondary sex characteristics that typically develop at puberty (facial/body hair, bone growth, breast growth, voice changes, etc.). The three categories of sex hormones that naturally occur in the body are:

- androgens: testosterone, dehydroepiandrosterone (DHEA), dihydrotestosterone (DHT)
- estrogens: estradiol, estriol, estrone
- progestagens: progesterone

Generally, “males”<sup>2</sup> tend to have higher androgen levels, and “females”<sup>2</sup> tend to have higher levels of estrogens and progestagens.

There are various types of medication that can be taken to change the levels of sex steroids in the body. Changing these levels will affect fat distribution, muscle mass, hair growth, and other features that are associated with sex and gender. For MTFs this can help make the body

2 The binary terms “male,” “female,” “masculine,” “feminine,” “masculinizing,” and “feminizing” don’t accurately reflect the diversity of trans people’s bodies or identities. But in understanding how hormones work for trans people, it is helpful to understand how testosterone works in “typical” (non-intersex, non-trans) men’s bodies, and how estrogen and progesterone works in “typical” women’s bodies. We keep these terms in quotes to emphasize that they are artificial and imperfect concepts.

look and feel less “masculine” and more “feminine” – making your body more closely match your identity.

## What Medications Are Involved for MTFs?

Various kinds of medication can be used to change the levels of sex hormones in your body. Some work on the part of your brain that stimulates sex hormone production, some work on your testicles (which produce testosterone), and some work directly on the cells in your body that respond to sex hormones. Some of these medications are also hormones, and some are another type of chemical.

Typically MTF hormone therapy involves estrogen, medication to block testosterone, or a combination of the two. Sometimes a progestagen is added to the mix.

### 1. Estrogen

Estrogen is the main hormone responsible for promoting “female” physical traits. It works directly on tissues in your body (e.g., makes breasts develop) and also indirectly suppresses your testosterone.

Estrogen can be taken in different ways:

- pill (*oral application*)
- skin patch or gel (*transdermal application*)
- injection (*intramuscular application*)

For reasons that aren’t understood, estrogen seems to cause blood clots less when it is taken through the skin rather than by pills or injections. For this reason, transdermal estrogen is usually recommended to anyone who is over age 40, a smoker, or otherwise at risk for blood clots. Transdermal estrogen also tends not to elevate triglycerides (a type of fat in the blood) as much as estrogen taken by pill/injection, so it is recommended if you are at risk of heart disease or stroke.

There are different chemical formulations of estrogen. Usually 17-beta-estradiol (patch = Estradot<sup>®</sup>, Estraderm<sup>®</sup>, or Oesclim<sup>®</sup>; pill form = Estrace<sup>®</sup>) is used because it has the least health risks. Conjugated estrogens (e.g., Premarin<sup>®</sup>) and ethinyl estradiol are not recommended because studies of non-trans women have shown them to increase the risk of some types of health problems.

## 2. Anti-androgens (also known as androgen blockers or androgen antagonists)

Anti-androgen drugs work by blocking the effect of testosterone. This reduces “male” physical traits and has a mildly “feminizing” effect. For example, they will help slow “male”-pattern baldness, reduce growth of facial hair, and stop spontaneous/morning erections. There are different types of anti-androgens. The ones most typically prescribed to MTFs are spironolactone (Aldactone<sup>®</sup>) and finasteride (Proscar<sup>®</sup>). Cyproterone (Androcur<sup>®</sup>) can be used, but risks include depression and liver enzyme elevation so spironolactone is generally preferred.

Anti-androgen drugs are often prescribed in addition to estrogen, as the two have effects that complement each other. Taking anti-androgens reduces the amount of estrogen you need to get the same effects, which minimizes the health risks associated with high doses of estrogen. Anti-androgen drugs can be prescribed alone for MTFs who want to reduce “masculine” characteristics for a more androgynous appearance, as it’s less “feminizing” than estrogen.

## 3. Progestagens

There are mixed opinions about using progestagens (e.g., Prometrium<sup>®</sup>, Provera<sup>®</sup>) for MTFs. Most trans health programs around the world don’t use progestagens due to the lack of clear evidence that they are important in “feminization,” and the known side effects (which include depression, weight gain, and changes to blood fats). Other doctors use progestagens:

- to supplement estrogen if estrogen isn’t working even at the maximum dose, or
- as a replacement for estrogen if there are concerns about estrogen’s side effects or health risks, or
- because they believe that progestagens help with nipple development

As with estrogen and anti-androgens, balancing possible risks and benefits of progestagens is a decision between you and your health care provider.

# What's a Typical Dose?

Clinical protocols for MTF therapy vary greatly. There is no one right hormone combination, type, or dose. Deciding what to take depends on your health (each medication has different risks and side effects), what is available locally, and what you can afford. It also depends on how your body reacts when you start taking hormones – everyone's body is different and sometimes people have a negative reaction to a specific kind of medication.

The right dose or type of medication for you may not be the same as for someone else. It is a good idea to discuss the advantages and disadvantages of different treatment options with a medical professional who has trans health training and experience with hormones. If you have any concerns about being able to take the medications, or about the side effects, costs, or health risks, let them know – it's important that your needs and concerns be taken into account when planning your hormone therapy.

The table on page 6 summarizes the forms of hormone therapy most commonly used by MTFs in BC, and gives the range of starting doses recommended by the Transgender Health Program. Your health provider may start you on a lower dose if you have chronic health problems, are at risk for specific side effects, or have had your testicles removed. If you have been prescribed a dose that is quite a bit higher or lower than the doses outlined in the table below, talk with your health care provider about their reasons for suggesting the dose you have been prescribed (and get a second opinion if you want one).

## Hormone therapy commonly used by MTFs in BC

	Estrogen		Anti-androgen	
Chemical	17-beta estradiol		Spironolactone and/or Finasteride	
Brand name	Estradot®, Estraderm®, Oesclim®	Estrace®	Aldactone®	Proscar®
Taken via	Skin patch	Pill	Pill	Pill
Typical starting dose	start with 0.1 mg patch twice per week; gradually increase up to maximum of 0.4 mg patch twice per week	start with 1–2 mg per day; gradually increase up to maximum 8 mg per day	start with 50–100 mg per day; increase by 50–100 mg each month up to maximum 200–300 mg per day	2.5 mg every other day
Typical cost (as of 2005)	0.1 mg twice/ week: ~\$25/month*	2 mg per day: ~\$15/month*	300 mg per day: ~\$22/month*	2.5 mg every other day: ~\$30/month*

\* Plus the dispensing fee set by each pharmacy and billed each time a prescription is refilled. In BC this averaged \$9.25 in 2005. Compounding pharmacies may charge significantly more.

In prescribing a particular medication and dosage, your doctor should consider your health, including any other medications you are taking. Every person is different in terms of how their body absorbs, processes, and responds to sex hormones. Some people have more changes than others; changes happen more quickly for some people than others.

Taking more hormones than the dose you were prescribed is **not** a good way to try to speed up changes. Taking a higher dose can actually slow down the changes you want: extra estrogen in the body can be converted to testosterone by an enzyme called *aromatase*. Taking more than your prescribed dose also greatly increases your health risks. If you think your dose is too low, talk with a health care professional who has trans health training to discuss options. It may be better to try a different type of medication or combination of medications, rather than increasing the dose.

After removal of the testicles (see the booklet *Surgery: A guide for MTFs*) your body is only producing a tiny amount of testosterone, so the dosage of estrogen is usually cut in half and anti-androgens greatly

reduced or stopped. You will need to stay on estrogen or another form of medication for the rest of your life to preserve bone strength (see *Trans people and osteoporosis* booklet). Your doctor may also suggest that you take Calcium and Vitamin D supplements to protect your bones.

## What Changes Can I Expect, and How Soon? (Benefits)

“Feminizing” hormone therapy has important psychological benefits. Bringing the mind and body closer together eases gender dysphoria and can help trans people feel better about their bodies. People who have had gender dysphoria often describe being less anxious, less depressed, calmer, and happier when they start taking hormones. For some people this psychological change happens as soon as they start taking hormones, and for others it happens as physical changes happen.

The degree and rate of change depends on factors that are different for every person, including your age, the number of hormone receptors in your body, and how sensitive your body is to the medication. There is no way of knowing how your body will respond before you start hormones.

### 1. Taking anti-androgens alone (without estrogen)

Taking an anti-androgen without estrogen has relatively mild effects. The changes are caused by the medication blocking the effect of testosterone in your body. Most of the changes are reversible (i.e., they will reverse if you stop taking the medication).

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Typical changes from anti-androgens (vary from person to person)	
Average timeline	Effect of blocking testosterone
1–3 months after starting anti-androgens	<ul style="list-style-type: none"><li>• decrease in sex drive</li><li>• fewer instances of waking up with an erection or spontaneously having an erection; some MTFs also have difficulty getting an erection even when they are sexually aroused</li><li>• decreased ability to make sperm and ejaculatory fluid</li></ul>
Gradual changes (usually at least 2 years)	<ul style="list-style-type: none"><li>• slower growth of facial and body hair</li><li>• slowed or stopped “male”-pattern balding</li><li>• slight breast growth (reversible in some cases, not in others)</li></ul>

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**Anti-androgens affect the entire body.  
It’s not possible to pick some changes and not others.**

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## 2. Estrogen

Taking estrogen has stronger physical “feminizing” effects, caused by the estrogen’s direct influence on cells of your body that have estrogen receptors and also by an indirect suppression of testosterone production.

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### Typical changes from estrogen (vary from person to person)

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Average timeline	Effect of estrogen
1–3 months after starting estrogen	<ul style="list-style-type: none"><li>• softening of skin</li><li>• decrease in muscle mass and increase in body fat</li><li>• redistribution of body fat to a more “feminine” pattern</li><li>• decrease in sex drive</li><li>• fewer instances of waking up with an erection or spontaneously having an erection; some MTFs also find their erections are less firm during sex, or can’t get erect at all</li><li>• decreased ability to make sperm and ejaculatory fluid</li></ul>
Gradual changes (maximum change after 1–2 years on estrogen)	<ul style="list-style-type: none"><li>• nipple and breast growth</li><li>• slower growth of facial and body hair</li><li>• slowed or stopped “male”-pattern balding</li><li>• decrease in testicular size</li></ul>

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**Estrogen affects the entire body.**

**It’s not possible to pick some changes and not others.**

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Breast and nipple growth starts early but is usually gradual – it can take two years or more for breasts to reach their maximum size. As in non-trans women, there is great variation in how large breasts grow from estrogen. In many MTFs breasts do not grow beyond an A or B cup. If you are not happy with the size of your breasts after 18–24 months on estrogen, you can consider surgical augmentation (see *Surgery: A guide for MTFs* booklet). The implants will look most natural if you wait to get as much growth as you can from hormones.

Most of the effects of hormones happen in the first two years. During this time, the doctor who prescribes your hormones will want to see you one month after starting or changing your dose, then 3–4 times in the next year, then every six months. At appointments in the first two years, your doctor will likely:



- look at your facial/body hair and ask how fast your hair grows back after you remove it
- measure your breasts, hips, and testicles, and examine your breast/nipple development
- ask about changes to your sex drive, erections, or other sexual changes
- order a blood test to see what your hormone levels are
- ask how you feel about the changes that have happened thus far

After two years have passed, you will likely just be asked if you notice any further changes from the hormones.

## Are These Changes Permanent?

Most of the changes brought on by “feminizing” hormone therapy are not permanent. If you stop taking the medication, most of the changes will reverse themselves. There are two types of changes that may be permanent: breast growth and sterility.

If you are taking anti-androgens without estrogen because you don’t want visible changes, you should be aware that you may have some breast growth (although it will happen slowly, so you can stop early on if you need to). Breast growth from anti-androgens is usually minor and reversible, but in some cases the breast tissue has remained even after anti-androgens were stopped.

Estrogen causes permanent nipple development and breast growth. Even if you stop taking estrogen, breast tissue will not go away and your nipples will not shrink.

Both anti-androgens and estrogen affect your production of sperm. The long-term effects on fertility are not fully understood and the ability to make sperm may or may not come back even if you stop taking the medication. We strongly recommend that you talk about options for sperm banking *before* starting hormone therapy. If you have already started hormones, you can work with your doctor to go off them, give sperm samples, and store them if they are viable (then go back on hormones).

# What Won't Change?

## 1. Hormone therapy won't solve all body image problems.

The point of hormone therapy is to feel more comfortable with your body by bringing physical characteristics closer to your internal sense of self. This relief can increase self-esteem and make you feel more confident and attractive. However, you will find that there are also attractiveness standards after hormone therapy, and you may not fit them.

It can be hard to separate out gender dysphoria from body image problems. Professional and peer counselling can be helpful to sort out your expectations about your appearance, and to work towards greater self-acceptance.

## 2. Hormone therapy won't make you into somebody else.

Many people experience positive emotional changes with hormone therapy. But you'll likely find, after the excitement wears off and you've incorporated the changes into your day-to-day life, that if you were shy you're still shy, if you didn't like your laugh you still don't, and you're still afraid of spiders. Whatever things you think of as your strengths and weaknesses will still be there. Hopefully, you will be happier, and that is good for anyone. Hormone therapy may help you to be more accepting of yourself. But if you are expecting that all your problems will pass away, and that everything is going to be easy emotionally and socially from here on in, you're probably going to be disappointed.

This extends to mental health concerns as well. Trans people who were depressed because of gender dysphoria may find that taking hormones greatly alleviates their depression. However, if you have depression caused by biological factors, the stresses of transphobia or unresolved personal issues, you may still be depressed after you start hormones. Likewise, if you are having problems with drugs or alcohol, hormones will not necessarily get rid of those problems.

### **3. Hormone therapy won't provide you with a perfect community.**

For some trans people, hormone therapy is a ritual affirming that they are who they say they are. Making physical changes is a way to bring who you are to the rest of the world so other people can see it. This process of self-emergence can be very liberating but it does not guarantee that you will find acceptance or understanding.

Some MTFs hope that after they make physical changes they will be validated as “real” women, or feel more accepted by the trans community. But the idea that trans people aren't “real” unless they've changed their bodies is transphobic, and communities or groups that have this belief are not likely to be fully respectful in terms of trans people's identities and bodies.

During the various stages of transition, it's common to dream about finding an ideal community of trans people. When starting hormones there can be a particular drive to find other people who have gone through similar experiences. There are a lot of very cool trans people to talk with about hormones. But having taken hormones doesn't automatically make trans people welcoming, approachable, or sensitive to the needs of others, and despite having some experiences in common you will likely find that no trans person will exactly mirror your personal experiences, identity, and beliefs. Being realistic about the likelihood that you will at times feel lonely and alone after you start taking hormones is part of emotionally preparing for hormone therapy.

### **4. Hormone therapy won't remove all “male”/“masculine” aspects of your body**

Some physical characteristics aren't changed by hormone therapy, or are only slightly changed. This includes aspects of your body that develop before birth (penis, sex chromosomes, etc.) and also physical characteristics that developed from the increase in testosterone at puberty.

Hormone therapy may make facial and body hair grow more slowly and be less noticeable, but hair will not go away completely. Electrolysis and/or laser treatments are used by many MTFs for hair removal (electrolysis is permanent; it is not yet clear how long-lasting laser hair removal is).

While “male”-pattern baldness may slow down or stop, bald areas will not regrow hair. Some MTFs use wigs or hairpieces, while others get hair transplants or other medical treatments.

“Feminizing” hormone therapy does not change voice pitch or speech patterns (see *Changing speech* booklet). Speech therapy can help change pitch and other aspects of speech associated with sex/gender. Some MTFs have surgery on their vocal cords or the surrounding cartilage to try to further raise voice pitch.

Once your bones have stopped growing after puberty, feminizing hormone therapy won’t change the size or shape of your bones. Facial feminizing surgery (see MTF surgery booklet) can be used to change the shape of the skull and facial features, and to reduce a prominent Adam’s apple. There are no treatments you can take to reduce your height or the size of your hands/feet.

Although anti-androgens and estrogen affect sperm production and can make you permanently sterile, there may still be a chance that you could make someone pregnant even after starting hormone therapy. Depending on how you have sex, you may need to consider birth control options.

Hormone therapy doesn’t decrease the risks of HIV and sexually transmitted infections. Depending on how you have sex, you may need to consider condoms, gloves, or other latex barriers. “Feminizing” hormones can make erections less firm, increasing the risk of condom leakage. In this situation your partner can use a special condom that they put inside their anus or vagina (they’re called “female condoms” but can be used by people of any gender).

## **What are the Possible Side Effects/Risks of “Feminizing” Hormones?**

The medical effects and safety of “feminizing” hormones are not fully understood. Most of the studies on the medications used by MTFs as part of hormone therapy involve non-trans people using different doses than MTFs usually use. There may be long-term risks that are not yet known.

Many of the known risks of “feminizing” hormones can be reduced by creating a hormone combination that is tailored to your specific situation. Prevention includes periodic blood tests to keep an eye on potentially

risky conditions, and minimizing other health risks. Stopping smoking is the number one thing you can do to reduce your risk of blood clots and heart disease (and also make it possible to increase the amount of estrogen that can safely be prescribed).

## 1. General risks

The medications taken in hormone therapy are processed by the liver. There is a possibility that taking hormones over a long period of time can put strain on the liver, possibly leading to liver disease. It is generally recommended that MTFs taking feminizing hormone therapy get their liver enzyme levels checked periodically to monitor liver health. This is especially important if you have Hepatitis B or C, are a heavy drinker, or are otherwise at risk for liver disease.

Being visibly trans in a transphobic society has social risks. While it is possible to stay closeted if you're taking small doses of anti-androgens (as the changes aren't highly visible), estrogen causes changes that can be visible, including breast growth. Some visibly trans people experience violence, harassment, and discrimination, while others have lost support of loved ones. If you are worried or stressed about these possibilities, or unsure of how to tell a loved one that you are thinking about taking or planning to take hormones, peer and/or professional counselling can be useful.

## 2. Side effects/risks of estrogen

Taking estrogen increases the risk of blood clots. Blood clots can cause death, permanent lung damage (clot in the lungs), permanent brain damage (stroke), heart attack, or chronic problems with the veins in your legs. The risk of blood clots is much higher for smokers, especially those who are age 40 or higher. The danger is so high that some doctors will not prescribe estrogen if you are a smoker; most will only prescribe you a low dose as long as you are still smoking. The risk of blood clots may be reduced by taking estrogen via skin patch, cream, or gel (rather than pill/injection) and also by using a lower dose of estrogen.

Taking estrogen changes the way your body metabolizes and stores fat. Taking estrogen can increase deposits of fat around your internal organs, which is associated with increased risk for diabetes and heart disease. Estrogen also increases the risk of gallstones, which can block your

gallbladder. If you have chest or abdominal pain, you should see a medical professional right away.

Estrogen can cause increased blood pressure. This can be counteracted by taking it with spironolactone, which tends to lower blood pressure. If you can't take spironolactone, there are other changes that can be tried, including other types of medication, exercise, and changes to diet.

In some MTFs estrogen causes nausea and vomiting, similar to morning sickness in pregnant women. Estrogen can also cause headaches or migraines. If you are getting frequent headaches/migraines or the pain is unusually bad, or if you are vomiting for more than a couple of days, talk to a health professional.

With breast growth there is often an increase in milky discharge from the nipples (*galactorrhea*). This is caused by the estrogen stimulating the production of the hormone *prolactin*, which in turn stimulates breast ducts to form milk. It is not known whether this increases the risk of non-cancerous tumours of the pituitary gland, which produces prolactin (*prolactinoma*). Although prolactinoma is usually not life-threatening, it can damage vision and cause headaches. For this reason, blood levels of prolactin are usually checked for at least three years when you start taking estrogen, and further tests may be ordered if prolactin levels are very high or if prolactinoma is suspected.

It is not known if estrogen increases the risks of breast cancer (see *Trans people and cancer* booklet). There have been cases of MTFs who have developed breast cancer after starting hormones. Risks of breast cancer are increased if you have a family history of breast cancer, have been taking estrogen and/or progestagens for more than 5 years, are age 50+, or are overweight. Talk with your health care provider about screening tests that can be done to catch early signs of breast cancer.

### **3. Side effects/risks of anti-androgens**

Spironolactone affects the balance of water and salts in the kidneys. If the proportion of water and blood salts gets out of balance, you can have problems with low blood pressure or, rarely, high levels of potassium in the blood (this can cause changes to heart rhythm that may be life-threatening). The doctor/nurse who prescribes you hormones should check your potassium levels and kidney function on a regular basis if you:

- have a history of kidney problems
- are taking medication that can raise blood potassium (ask your doctor or pharmacist)
- are taking ACE-inhibitors (e.g., Accupril<sup>®</sup>, Altace<sup>®</sup>, Capoten<sup>®</sup>, Coversyl<sup>®</sup>, Inhibace<sup>®</sup>, Lotensin<sup>®</sup>, Mavik<sup>®</sup>, Monopril<sup>®</sup>, Prinivil<sup>®</sup>, Vasotec<sup>®</sup>, Zestril<sup>®</sup>) – commonly prescribed for people with high blood pressure or heart problems

Spironolactone can also cause a skin rash. If this happens, see the doctor/nurse who prescribed the hormones.

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**Summary of risks and possible side effects of MTF hormone therapy**

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<b>General risks</b>	<ul style="list-style-type: none"> <li>• increased strain on liver → increased risk of liver disease</li> <li>• harassment, discrimination, violence, and rejection by people who do not support your decision to take hormones</li> </ul>	
<b>Estrogen</b>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>• increased risk of blood clots (risk of death or permanent damage)</li> <li>• increased risk of diabetes and heart disease</li> <li>• increased risk of gallstones</li> <li>• may be increased risk of non-cancerous tumour of pituitary gland</li> <li>• not known if breast cancer risk is increased</li> </ul>	<p><b>Possible side effects</b></p> <ul style="list-style-type: none"> <li>• increase in blood pressure</li> <li>• nausea or vomiting</li> <li>• increase in frequency or severity of headaches/migraines</li> <li>• milky discharge from nipples</li> </ul>
<b>Spironolactone</b>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>• low blood pressure</li> <li>• changes to heart rhythm due to high levels of blood potassium</li> </ul>	<p><b>Possible side effects</b></p> <ul style="list-style-type: none"> <li>• skin rash</li> </ul>

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# Health Checkups While You're Taking Hormones

As long as you are taking hormones (possibly the rest of your life), you need to have regular physical exams and lab tests to monitor your overall health. The first year after starting hormones, the prescribing doctor/nurse will want to see you at least every 3–4 months; after that, you will have appointments at least every 6 months. At each of these appointments, the doctor/nurse will likely:

- ask questions about your overall health
- check your blood pressure and your weight, and listen to your lungs
- look at your arms, legs, hands, and feet to check your overall circulation as well as any signs of swelling, fluid retention, or pain
- check for early warning signs of health problems that can be caused by hormone therapy or made worse by hormone therapy (e.g., blood clots, heart disease, diabetes)
- recommend blood tests to check your blood sugar, blood fats, blood cells, and liver health
- recommend other tests (e.g., bone scan, heart stress function test) as needed, depending on your health history, age, and any signs of possible health problems

It is not known whether hormone therapy increases MTFs' risks for breast cancer. Depending on your age, family history, and other risks for breast cancer, your health care provider may recommend a yearly mammogram. If you are older than 50, your health care provider should check your prostate (via a finger in your rectum) once a year.<sup>3</sup> For more information on cancer screening, see the Transgender Health Program's cancer booklet.

While the Transgender Health Program's training for health care providers emphasizes the need to be creative and consider stopping hormones as a last resort (rather than a first resort), there are some health problems that make it dangerous to take hormones. If your health

<sup>3</sup> Like the testicles, the *prostate* (an organ that sits around the neck of the bladder) usually shrinks from "feminizing" hormones. However, prostate cancer can still happen. PSA (prostate-specific antigen) tests are sometimes recommended to monitor prostate health. Anti-androgens and estrogen can artificially lower PSA levels, making PSA tests unreliable in MTFs who are taking hormones.



care provider suspects you have one of these conditions, they will try to control it through medical treatment and/or changes to your diet, exercise, or other lifestyle issues. If the condition can't be controlled, you may be switched to another type of hormone, or your dose may be reduced or stopped until your other health problems get under control.

## Maximizing the Benefits, Minimizing the Risks

There are a number of things that you can do to help ensure your hormone therapy is as effective and safe as possible:

- ***Be informed.*** Understanding how hormones work, what to expect, possible side effects/risks, and guidelines for care gives you the tools to be in charge of your health and to make informed decisions. Do your own research and ask questions. If you're not sure where to look, the Transgender Health Program (see last page) can help you find resources.
- ***If you smoke, stop or cut down.*** Smoking greatly increases the risks involved with hormone therapy. If you are a smoker, your estrogen level may have to be kept low. If you need help to quit, your health care provider can help you develop a plan and/or direct you to further resources (or contact QuitNow, toll-free at 1-877-455-2233, <http://bc.quitnet.com>). If you aren't ready to quit, consider cutting down: every little bit helps.
- ***Find a health care provider you trust and can be honest with.*** To get the most from hormone therapy, you need to be able to talk openly about what you want, concerns you have, and any problems you are experiencing. You also need to be able to talk openly with your health care provider about your health history, smoking, alcohol, street drugs, dietary supplements, herbs, and any other medication you are taking. Hormone therapy can be affected by all of these things, and being honest about them will help create a plan that is right for you.
- ***Deal with problems early on.*** If caught early enough, most of the problems that can result from taking hormones can be dealt with in a creative way that doesn't involve stopping hormones completely. Waiting can worsen your health to the point where you can't take hormones at all.

- ***Don't change medication on your own.*** Check with your health care provider if you want to start, stop, or change the dose of any of your medication. Taking medication more frequently or at a higher dose than prescribed increases health risks and can slow down the effects you want. Going against the instructions of your health care provider also erodes trust with them. If you want to change your medication, talk with your health provider first.
- ***Take a holistic approach to your health.*** Health involves more than just hormone levels, and taking hormones is only one way for trans people to improve quality of life. Building a circle of care that includes health professionals, friends, partners, and other people who care about you will help support you to deal with other health problems as they come up, and to heal from societal transphobia.
- ***Know where to go for help.*** Staff at the Transgender Health Program can help you find information on trans health and transition issues, and can also help you connect with trans groups and community resources in your region. They can help with referrals if you need assistance finding a trans-experienced medical provider, counsellor, or another type of health professional.

## 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](mailto: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](mailto:trans.health@vch.ca) or call/TTY 1-866-999-1514 (toll-free in BC) and quote Catalogue No. GA.100.H7822.