Myths and Misconceptions about Testosterone, Transition, and Trans Men

DISCLAIMER
The information contained herein is to be used for educational purposes only. The author is not a medical professional, and this information should not be considered medical advice. **This information should NOT be used to replace consultation with or treatment by a trained medical professional.** The listing of a medication herein does not imply endorsement by the author.

Introduction
Myths and misconceptions about transsexual and transgender people are all too common. Many people, even well-meaning individuals, simply do not know very much about gender identity issues, the transition process, or the hormonal and surgical treatment options currently available for transsexual and transgender people.

This general lack of knowledge can be compounded by certain preconceived notions about men and women, gender roles, human sexuality, and even medicine and science.

The result of these combined factors is that certain misconceptions about female-to-male (FTM) transsexuals seem to circulate despite the availability of contrary evidence, or even common sense.

The following section outlines some of the common myths and misconceptions around trans men, including myths about testosterone and transition. If some of the answers seem long, it is only in an effort to provide information and food for thought around areas where stereotypes or urban legend tend to overshadow logic and knowledge.

MYTHS ABOUT TESTOSTERONE

Myth #1: Taking testosterone ("T") for transition will make trans men uncontrollably angry and volatile, or cause "'roid rage."

This is one of the most common myths about FTM transsexuals who take testosterone, but there is no compelling evidence to support such a sweeping generalization. Indeed, while some trans men anecdotally report feeling shorter tempered or irritable for a period after starting T, many others report that they feel calmer and more even-tempered since taking T. Yet time and again, trans men and their loved ones often voice fear that taking testosterone will somehow automatically change an FTM transsexual into a terrible, angry, or violent person.

This myth probably gets some its fuel from stories about "steroid" use causing anger or volatility (often called "'roid rage") in bodybuilders and other athletes who take performance enhancing drugs. In order to understand the differences between athletic "steroid" use and testosterone therapy as taken by trans men, it pays to explore exactly what "steroids" mean in each context.

Steroids and "'Roid Rage"
The term "steroid" technically refers to a lipid molecule characterized by a carbon structure with four fused rings (three cyclohexanes and one cyclopentane). Hundreds of distinct steroids

have been identified in plants, animals, and fungi. In humans and animals, hormones such as testosterone, estrogen, and progesterone-- as well as the cholesterol molecule-- all technically belong to the "steroid" family.

When used in the context of drugs used to enhance athletic performance, the term "steroids" is a blanket term that refers to anabolic (muscle/tissue-building) substances such as testosterone and other synthetic steroid hormones (nandrolone, oxandrolone, etc.), as well as non-steroid compounds such as estrogen blockers, human growth hormone (HGH), clenbuterol, cytomel, and a myriad of other supplements and substances. These substances are typically used in concert to enhance muscle-growth, strength, and recovery time for athletes, as well as to block estrogenic side-effects, discourage water retention, increase fat-burning, and alter other metabolic processes (depending on the desired results). In other words, when people refer to "steroids" in the context of athletic performance, they are often referring to many substances (some technically steroids and some not) that are being taken in a particular pattern to optimize desired performance results.

The goal of testosterone therapy in a transsexual man is to bring the level of T in his body into what is considered a healthy male range in order to induce and maintain masculine secondary sex characteristics such as lowering of the voice, a masculine pattern of fat and muscle distribution, facial and body hair growth, and so on. An FTM transsexual's hormone regimen is also usually aimed at keeping a steady and healthy level of T in his system over his lifetime.

This contrasts the purpose of testosterone use by bodybuilders and athletes, which is to elevate the level of testosterone in the body to an unusually high level in order to quickly produce desired performance results such as bigger muscles, increased strength, increased muscle recovery time, more power, and so on. The amount of testosterone that is used by some performance-driven athletes and bodybuilders is typically much higher per dose and in frequency than the amount used by trans men for transition and lifetime maintenance. Additionally, as mentioned above, "steroid" users are often using an entire battery of drugs in addition to testosterone (or another anabolic steroid), depending on the goals of the athlete. Steroid use is often "cycled" in these cases in varying patterns.

Because of these many differences, comparing the T use of most trans men with that of "steroid" use in bodybuilders and athletes is a bit like comparing apples and oranges. So fears of rampant "roid rage" in a transitioning FTM transsexuals are ill-founded at best.

Hormone levels and moods

It is important to point out that hormone levels in the human body are part of a delicate balance which involves complex feedback systems. (For basic information on this topic, see the section "Hormones and the body: a brief overview"). It is reasonable to assume that changing the levels of hormones in our systems may have an effect on us, both physically and emotionally. Any woman who has suffered with premenstrual syndrome, or any man who has suffered with low testosterone levels can attest to this possibility. However, some effects of changing hormonal balance may be related to the *levels* of the hormones in question, or with *dramatic* changes in hormone levels, rather than the simple *presence* of the hormones themselves. For example, one of the symptoms that is sometimes seen in men with low levels of testosterone is irritability. In such cases, it does not seem to be the testosterone itself that is causing the irritability, but rather the fact that the level of testosterone is considered low. Thus, those who declare a simple relationship between testosterone and negative moods may wish to reconsider how levels and balance of various hormones (as well as other factors such as environment) may come into play; indeed, such relationships are not yet fully understood by medical science.

When a trans guy first begins testosterone therapy, he might experience some mood shifts. This is normal, because beginning T therapy is usually a significant emotional moment in a trans person's life, and also because his body is beginning a major hormonal shift. As

mentioned above, some trans men do anecdotally report feeling quicker to anger or a shorter temper; but many others report a calming effect, and/or a lifting of depressive feelings. Others report very few changes in mood, while some only notice mood differences the day or two before their next shot (they may feel more tired or irritable when testosterone levels have reached a low in their shot cycle). Some find their moods even out with time or an adjusted dosing regimen.

Whatever the case, if a trans man or his loved ones notice significant mood changes that don't settle themselves over time, he may wish to discuss adjusting his T dosing pattern with his doctor. He may also wish to consider whether those mood changes are related to the events going on in his life. Transition can be a time of major change in social life, home life, and work life, all of which can have a tremendous effect on one's moods. Talking to a therapist or a peer support group can help ease such changes.

Testosterone and gender stereotypes
Early on in transition, some trans men (but certainly not all) can become consumed with worries about how they believe men should look, speak, act, and/or feel about the world around them. This is understandable to a degree, as transition can be a trying time, and early transition in particular involves a certain amount of adaptation to change. During such a heady time, a trans man and those around him might be quick to assign his every emotion or action (negative or positive) to the testosterone in his system. However, it is important to remember that each individual's own beliefs and stereotypes about men and women-- as well as their own pre-existing personality traits-- may also play into their behavior as they adapt to the changes of transition. Blaming testosterone for every possible negative action or feeling is an easy scapegoat for what might just be bad behavior or poor individual coping strategies.

Testosterone is only one factor in transition, and not everyone responds to it in the same way. This is not to deny that testosterone can and does have significant effects on the moods and feelings of some trans guys, but rather to point out that many factors play into a person's behaviors. You can meet ten different trans people on the exact same dosing schedule of testosterone, and they may have ten different transition experiences!

In short, simply taking testosterone will not create a monster. Changes in our hormones may affect each of us differently, but much of the worry about T and FTM transition is based in fear and misunderstandings, rather than on a large-scale survey of actual trans men on T therapy.

Myth #2: Taking testosterone will give you cancer.

Calling this a "myth" is somewhat of a misnomer, because there is no solid proof one way or another as to the increased risk of cancer in FTM transsexuals taking testosterone for the purpose of transition. The truth is that FTM transsexuals, as a population, have not been studied in a large enough sample size and over enough time to determine the long-term risks of cancer associated with testosterone use for transition and lifetime maintenance of male secondary sex characteristics.

That being said, the two most commonly cited cancer concerns associated with trans men taking T are liver cancer, and cancer of the female reproductive organs (uterus/endometrium, cervix, and/or ovaries).

Liver cancer
Liver disease and liver cancer have been associated to the use of certain anabolic steroids, including some forms of testosterone, in non-trans men. Specifically, the use of C-17 alpha alkylated testosterone (particularly with oral testosterone) has been associated with liver

cancer. Oral administration of C-17 alpha alkylated testosterone is therefore generally discouraged, as injectable, transdermal, buccal, and pellet delivery methods are thought to lower such risks.

It should also be noted that men in general have an overall higher risk of getting liver cancer than women, though how this correlates to the specific case of FTM transsexuals is not clear.

Considering current medical knowledge, it is difficult to say whether the use of testosterone by trans men in doses for the purpose transition and maintenance increases the risk of liver cancer.

When taking testosterone for transition, one's doctor typically takes periodic blood tests to monitor a patient's overall health. Usually such tests include measurement of certain enzyme levels and/or other substances in the blood, the presence of which may indicate damage to the liver or other vital tissues. (To read more about liver function tests, see the section "FTM Testosterone Therapy and General Health.") Because risk to the liver is not fully understood, individuals taking testosterone should periodically have their doctors administer blood tests to monitor their overall health.

Cancer of the female reproductive organs

Regarding cancers of the female reproductive organs, some physicians recommend hysterectomy (surgical removal of the uterus) and oophorectomy (surgical removal of the ovaries) within the first 5 years of starting testosterone therapy. There is some concern that long-term testosterone treatment may cause the ovaries to develop similar symptoms as those seen in polycystic ovarian syndrome (PCOS). PCOS has been linked to increased risk of endometrial hyperplasia (a condition that occurs when the lining of the uterus (endometrium) grows too much) and thus endometrial cancer, as well as ovarian cancer.

It should be noted that it is difficult to prove whether the risk for such cancers is increased by testosterone therapy in trans men. Female-to-male transsexuals are a small population to begin with, and many undergo hysterectomy/oophorectomy early on in their hormonal treatment, thus making the study of long-term effects of testosterone on the uterus and ovaries difficult. Also, some trans men may have suffered from PCOS before beginning testosterone treatment.

Because the relationship between long-term androgen use and gynecological health is not fully understood, and because many trans men experience embarrassment and/or access issues over obtaining ongoing gynecological care, some may feel it is appropriate to pursue such surgeries as a preventative measure. For more information on hysterectomy, oophorectomy, PCOS, endometrial cancer, and ovarian cancer see the hysterectomy and oophorectomy page on this web site.

If a trans man chooses not to have a hysto/oopho procedure, he should continue to have regular Pap smears (to screen for cervical cancer) and should seek out the care of a doctor if he experiences any irregular vaginal bleeding (including spotting), cramping, or pain. It is not uncommon for trans men who are pre-hysterectomy to experience a buildup of endometrial tissue, especially during the first few years of testosterone therapy. Endometrial tissue is normally shed during menstruation, but since this process is usually stopped a few months into testosterone therapy, additional tissue may continue to build up and may eventually begin to shed in the form of spotting. Because irregular bleeding can be a sign of cancer (though this is often not the case), trans men who experience any bleeding/spotting should see a doctor who will perform tests to determine the cause of the spotting. These tests may include an endometrial biopsy and/or an ultrasound. The doctor may advise a short course of progesterone to cause the uterus to shed the excess endometrial tissue-- this is much like inducing a period. While this may be unpleasant, it should be understood as a preventative

measure, since the unusual buildup of endometrial tissue has been linked to endometrial cancer.

In conclusion, the cancer risks of taking testosterone for FTM transition are not well studied or understood. However, the benefits of testosterone therapy to quality of life may strongly outweigh concerns over such risks. For many trans men, the possibility of a slight increase in the likelihood of cancer (should that ever be proven) may be a risk worth taking in order to live their lives as men. If a trans man can further his peace of mind through a preventative hysterectomy/oophorectomy procedure, then this may well be a good option until accurate data about cancer risks is available.

Myth #3: Taking testosterone will make you grow taller.

Unless you begin testosterone therapy while still in your pubescent years (i.e., in your teens), it will not make you grow significantly taller.

The reason for this is that long bone growth stops near the end of puberty. "Long bones" are bones in your body that are longer than they are wide, and include the thigh (femur), lower leg (tibia and fibula), upper arm (humerus) and forearm (ulna).

During childhood and adolescence, the long bones are each made up of a shaft called "diaphysis" and end parts called "epiphyses." The epiphyses are separated from the shaft by a layer of cartilage called the "epiphyseal plate," or "growth plate." When our limbs grow during childhood and adolescence, the cartilage cells of the epiphyseal plates divide and increase in number. The newly formed cartilage in turn absorbs calcium and develops into bone in a process called "endochondral ossification," thus causing an increase in the bone's length. Around the end of puberty, cartilage growth stops, and the cartilage at the end of the growth plates is completely converted into bone. The growth plates are then "fused," and the long bones can no longer grow in length. (For illustrations of this process, check out the American Society for Bone and Mineral Research curriculum on "Bone Growth and Remodeling." Select the section called "Growth in long bones," which shows several diagrams and animations about the growth and fusion processes.)

Many trans guys start testosterone therapy years after the growth plates of their long bones have fused, and as such, significant increase in height due to bone growth is impossible. If you are starting testosterone while still in puberty, you may still grow taller (bearing in mind that height and growth are related to a complex number of factors, and testosterone is only one of them).

Even though bones stop growing in length in early adulthood, they can continue to increase in thickness or diameter (called "appositional growth") throughout life in response to events such as increased muscle activity or weight. However, this thickening would not account for significant height difference.

There is another major factor besides bone length that influences a person's height, and that is posture. Many trans men, particularly if they are able to have chest reconstruction surgery, begin to stand straighter and taller than they did previously. This can make a tremendous difference in height, especially if a guy was slumping to hide his pre-surgery chest. There is also a factor of confidence and pride in improving posture; such feelings are often increased post-transition, and can make a person stand taller to reach their full height potential.

Myth #4: Taking testosterone will make your breasts shrink away completely.

One of the effects of testosterone therapy in many FTM transsexuals is a redistribution of body fat from a "female-like" pattern to a "male-like" pattern. A decrease in fatty tissue around the breast area therefore would not be unusual. However, unless he is very small-chested to begin with, this decrease will not be significant enough to make his chest appear male (without surgical intervention).

Breast tissue is made up of fat, connective tissue, glandular tissue or "lobes," and a ductal system. This is true of males and females. The glandular and ductal tissue of most females develops quite a bit at puberty due mainly to estrogen, and a lot of fat cell growth in the breasts also occurs at that time.

Testosterone might decrease some of that fatty tissue distribution around the breasts, but probably not all of it, and the glandular and ductal tissues that have already developed will remain as well. So, hopes of having breasts simply "melt away" upon starting testosterone will only be fulfilled for the few who have very little breast development to begin with.

Myth #5: If you stop taking testosterone after chest surgery, your breasts will grow back.

In order to answer this myth, let's reconsider from Myth #4 exactly what breasts are made of: fatty tissue, connective tissue, and glandular tissue or "lobes," and a ductal system. Again, the glandular and ductal tissue of most females develops quite a bit at puberty, and there is also a lot of fat cell growth that comes along with it.

Most trans men have chest reconstruction well after pubescent development of the breasts. When a surgeon removes tissue in an FTM chest reconstruction surgery, s/he is removing glandular/fibrous tissue as well as excess fatty tissue. The surgeon (if s/he is doing a good job) removes as much of the glandular/ductal tissue as possible, and quite a bit of the fatty tissue as well. A little fat is usually left behind because without *some* fat, the wall of the chest would look too flat or even concave compared to the rest of the torso. (For more information on FTM chest reconstruction surgery, click here.) The amount and location of tissue left behind will depend on the skills of the surgeon and the surgical method used to remove the tissue.

Once glandular/ductal tissue has been surgically removed from the body, it is gone. It will not spontaneously grow back. Any very small amount of glandular/ductal tissue that may remain could experience some shrinkage or growth, but this would be minor.

Fatty tissue left behind may go through phases of growth and shrinkage, just like all fat on the body is susceptible to growth and shrinkage. Fat cells can always grow bigger due to influences in food intake, metabolism shifts, or hormone levels. If a trans man discontinues testosterone and still has functioning ovaries, there may be a shift in overall bodyfat distribution to a more "female-like" pattern, which may include a small fat increase in the chest area. But keep in mind that, for the most part, a post-chest surgery trans man has had a very large amount of tissue removed from his chest, such that even some growth in that fat will probably not become so significant as to re-grow "breasts" in the same way he once had them. Also keep in mind that some trans guys have chest surgery pre-testosterone (sometimes years prior to starting testosterone) and some people opt for chest surgery without testosterone, and these people generally do not experience re-growth of breasts post-surgery.

Myth #6: Taking testosterone will make you gay.

Some trans men may find that their sexual feelings and attractions shift after starting testosterone therapy, while others may not. Some trans guys are attracted to women pre-testosterone and remain attracted to women post-testosterone. Some are attracted to men pre-testosterone and remain attracted to men post-testosterone. Some may find their attractions shift from women to men or vice versa pre- and/or post-testosterone. Human sexuality is a complex subject, and FTM transsexuals are no different in this regard. There are straight, gay, bisexual, and asexual trans men, as well as people who don't really identify with any of those categories.

So, there is no specific correlation between taking testosterone and suddenly becoming gay. However, this myth may have gained some steam because a portion of trans men do experience a change in their sexual feelings post-transition. However, this may have more to do with the emotional changes that come with living as a man and being seen by the rest of the world as a man, rather than the simple presence of testosterone, per se. That is, once a trans guy has begun to feel comfortable in his body and in his role as a man, he may feel more comfortable exploring sexual feelings for men than he did pre-transition. Many trans men are uncomfortable in their bodies pre-transition, and as they become more comfortable post-transition, some might feel more confident in new or different sexual territory.

This myth probably also gains some momentum because it touches on some of the fears of the partners of trans men as they embark on transition. That is, many partners may wonder, "will he still be attracted to me?," or "will I still be attracted to him?" Concerns about community identity and loyalty can also compound this issue, particularly for those female-to-male trans people who may have roots in LBG (lesbian-bi-gay) communities.

The truth is, no one can predict all of the things that will happen to an individual during or after transition, and sometimes there will be surprises. However, if testosterone made all trans men gay, then there wouldn't be any post-transition trans men with female partners, and that is simply not the case.

Myth #7: If someone takes huge doses of testosterone, he will transition faster than at an "average" dose.

During the first months of T therapy, many trans men feel impatient waiting for masculinizing changes to happen. Some may consider doubling or tripling their dose, thinking that the more they put in, the faster the changes will come. However, as was mentioned in the "FTM Testosterone Therapy Basics" section, dramatically increasing your dose might have the effect of *slowing* your changes. This is because excess testosterone in your body can be converted into estrogen by an enzyme called "aromatase." This conversion is part of the body's natural feedback system-- if there is an abundance of testosterone in the body, it is converted ("aromatized") to estrogen in order to maintain a "normal" hormonal balance. Therefore, taking very large doses of testosterone might not be a great idea.

Changes from taking testosterone are cumulative, meaning that they build steadily over time. While some of the earliest changes (typically in voice, oiliness of the skin, and libido) may happen in the early weeks and months, most other changes (such as body hair and beard growth) take many months and even years to complete. One trans guy might see quick changes in one area and slower changes in other areas, while another person might see just

the opposite. The results and overall timeline of changes on testosterone therapy are impossible to know ahead of time. Patience is key (though it may be hard to muster for some trans guys who want changes to happen right away).

If you feel your transition isn't happening at a reasonable pace, speak openly to your doctor, have your T levels checked periodically (especially during the first year of treatment), take note of your changes and the feelings in your body, and adjust your dosage within reasonable limits if necessary. You might even find that a slightly lower dose could work better for you.

Myth #8: Taking testosterone will make you fat.

This is a fairly new myth that has been circulating recently in a few online forums. The short answer to the above myth is "no, testosterone won't necessarily make you fat," but explaining some of the factors involved in the answer takes a bit of effort.

Varying levels of testosterone-- like many other hormones-- can effect a person's metabolism, as well as other processes and systems in the body. (The word "metabolism" here refers to processes occurring in the body that turn the food you eat into energy that sustains you.) But just because a hormone can affect metabolism doesn't mean it will make you fat or skinny; usually, there are a combination of factors that go into weight loss or gain, and not all of those factors are fully understood. In order to explore this myth, we need to consider some of the effects of testosterone administration, including metabolic changes, the idea of insulin resistance, and bodyfat redistribution/abdominal fat.

Regarding metabolic rate, testosterone administration in non-transgender men has been shown to increase metabolism, loosely meaning that it increases the rate at which one is able to burn food energy. In other words, administering testosterone may actually help a man in maintaining a healthy body weight.

Let's consider another factor related to obesity, which is insulin resistance. Insulin resistance is a condition whereby the body becomes resistant to the ability of insulin (a hormone secreted by the pancreas) to shuttle glucose (sugar) into cells. To compensate for this resistance to insulin, the pancreas produces more insulin, which leads to an increase in circulating insulin levels. In many people, the pancreas cannot maintain such a high insulin output over an extended period of time, so eventually insulin levels begin to decrease and blood glucose levels increase. Insulin resistance is linked to both obesity and type 2 diabetes.

Studies about insulin sensitivity/glucose uptake rates and testosterone administration in non-trans men have been mixed. In some studies, administration of androgens in high levels to non-trans men has been shown to adversely affect glucose metabolism. In contrast, other studies have shown that administration of testosterone to men with low baseline testosterone levels (including hypogonadal men) results in improved insulin sensitivity. In a study of middle-aged obese men with lower baseline testosterone levels, testosterone treatment led to reduced insulin resistance. These studies suggest that modifying testosterone levels could have either a negative or positive effect on glucose metabolism. There is a significant amount of evidence to suggest that testosterone supplementation for men with low testosterone levels can improve glucose uptake, reducing insulin resistance, as well as helping to reduce visceral body fat around the abdomen. The exact correlation between testosterone level and insulin resistance in non-trans men is not understood, and is still being studied (For an interesting overview of a number of studies that consider the effect of testosterone supplementation on insulin resistance in men, see "Androgens, Insulin Resistance and Vascular Disease in Men," by D. Kapoor, et. al, *Clinical Endocrinology*, 2005;63(3):239-250.)

But do the clinical observations shown for non-trans men apply to trans men? FTM transsexuals are a small population and research on trans people is not well-funded, but there have been at least two widely-cited studies on the effects of testosterone on insulin resistance in trans men taking testosterone. A 1994 study ("Induction of insulin resistance by androgens and estrogens" by K.H. Polderman, et. al, *Journal of Clinical Endocrinology and Metabolism*, 1994 Jul;79(1):265-71) observed 18 female-to-male transsexuals receiving 250 mg/2 weeks doses of IM injected testosterone ester over the course of 4 months. The study concluded that testosterone treatment in FTM transsexuals can induce insulin resistance. However, a 2003 study entitled "Effects of sex steroids on components of the insulin resistance syndrome in transsexual subjects" by J.M. Elbers, et. al, *Clinical Endocrinology*, 2003 May;58(5):562-71) showed that in 17 female-to-male transsexual subjects receiving 250 mg/2 weeks doses of IM injected testosterone ester over a 1 year period, insulin sensitivity was mainly unaffected.

It is interesting to note that in the first study, a period of only 4 months was used to assess changes in insulin sensitivity. Such a short period of time might show short-term or early-transition-related results which may not be the norm after long-term hormonal treatment has progressed. Indeed, times of great hormonal shift have been associated with a decrease in insulin sensitivity, including the example of elevated sex hormone levels found during normal puberty, as well as the example of hormonal shifts during pregnancy. The fact that the 1-year study in 2003 showed no negative affects to insulin sensitivity may support this idea. Of course, two small studies does not a definitive conclusion make, and there may be other factors at play between the two groups. Certainly more research in this area is needed.

Some may argue that FTM transsexuals taking testosterone should be compared to women with polycystic ovarian syndrome (PCOS), because women with PCOS show a correlation between insulin resistance and higher-than-average levels of testosterone (higher-than-average T levels for women, that is). However, because long-term testosterone administration in trans men generally results in very different overall hormone levels as compared to women with PCOS, and because the exact relationship between hormone levels and insulin resistance is not fully understood, it would most likely be optimal to study trans men directly rather than compare them to women with PCOS.

Now let's consider another factor in FTM testosterone therapy-- the redistribution of body fat to a more "male" pattern. Over the course of months and years, a trans man typically sees a migration of bodyfat from his hips and legs to his belly. This can be very dramatic for those who may have been overweight to begin with (they may show a very large accumulation of fat around the midsection), while those who did not carry a lot of bodyfat to begin with might not see a dramatic increase in abdominal fat.

Large deposits of visceral abdominal fat has also been linked to insulin resistance (as well as to low testosterone levels in non-trans men, and to increased testosterone levels in women with PCOS). Again, the exact relationship and causality between these factors is not fully understood. In general-- for people of all sexes-- large deposits of abdominal fat/obesity tends to be linked to insulin resistance, which can create a vicious cycle where more bodyfat is stored while an individual becomes increasingly resistant to insulin.

So, does any of this answer the original myth about testosterone making trans men fat?

Perhaps the best answer, as indicated in the opening paragraph, is that testosterone alone will not magically make a trans man fat. Upon taking testosterone, his metabolism will probably increase, which will help him burn calories faster (a plus on his side). Of course, his increased metabolism might result in an increased appetite, and if he doesn't take good care to eat right, he could put on some extra pounds. He will probably add a little extra muscle mass (testosterone is an anabolic, or muscle-building, agent), and lean muscle mass has been shown to help maintain a healthy metabolism and efficiently burn fat (another plus on his side, especially if he does resistance exercise to increase his overall muscle mass). His bodyfat may

migrate to his belly (a setback), but if he is not overweight to begin with, this probably won't be a major issue. He may (or may not) see some change in his insulin resistance. This is a wild card, since there is no conclusive evidence regarding how testosterone levels relate to insulin resistance. It would be wonderful to have better data on the factor of insulin resistance, but the truth is that the details of the relationship between hormone levels, glucose metabolism, and bodyfat isn't well understood.

There is a final possibility to be noted, which is that he might see a slight increase in water retention (and thus added water weight) during the first months on testosterone, but this is not unusual and usually passes. Because it is temporary water weight, it should not be considered in terms of added fat.

In conclusion, if a trans man is not overweight to begin with, and if he eats a healthy, balanced diet and exercises regularly, he should not become fat upon starting testosterone... which is pretty much how most non-trans people maintain a healthy body weight.

(If you are still in doubt about this myth, it might help to take a look at numerous photos of trans guys; you'll find that while some are overweight (they may have been overweight before transition), many are quite fit. As with most people, there are a range of body types among FTM trans people.)

OTHER MYTHS ABOUT FTMs AND TRANSITION

Myth #9: FTM transsexuals are just lesbians who couldn't cope with their homosexual feelings.

Until quite recently, in order to be considered a "true transsexual" by the medical establishment (and thus be granted access to hormonal and surgical treatment), one had to declare sexual attraction exclusively to members of one's birth sex. So, for example, a "true" female-to-male transsexual was thought to necessarily be attracted to women. Indeed, if he declared he was attracted to men, a trans man might not have been considered a "good candidate" for medical transition or for a "successful life" as a man. This notion was probably due in part to the overwhelming assumptions of a heterosexual norm in our culture, as well as to "homosexual/gender invert" theories that were introduced by some doctors and psychiatrists around the early 1900s.

Clinicians who treat transsexual populations have in general moved away from such thinking, recognizing that a number of the transsexual people they treat are indeed attracted to people opposite of their birth sex, and identify as gay post-transition. There has been increasing recognition that gender identity and sexual orientation are separate aspects of an individual identity, and one is not necessarily predictive of the other.

The very existence of transsexual people who identify as gay post-transition pokes a giant hole in the theory that all transsexuals are just gay people who cannot accept their own homosexuality, and supports the notion that sex, gender identity, and sexual orientation may all be separate parts of a person's identity.

Another blow to the theory that FTM transsexuals are simply unhappy or unaware lesbians is the fact that a significant portion of trans men (but certainly not all) have lived "successfully" as lesbians, or in queer women's communities, for some fraction of their lives. Many of those who have lived in LBG communities transition not out of homophobia, but simply out of the recognition that the identity of woman just did not fit them.

Myth #10: All trans men come from the lesbian community, or originally lived as lesbians.

While a certain portion of trans men have lived as lesbians in the past, many others have never lived as lesbians, and many are attracted to men pre- and post-transition. So to declare that "all trans men" come from the same sexual experience or background is decidedly false.

This misconception is common because many people erroneously think of transsexual and transgender people as being "just another kind of gay person." This is probably due to early theories of sexologists and psychiatrists (from the late 19th and early 20th centuries)-- as well as persistent cultural stereotypes-- that describe homosexuals as being "gender inverts" (i.e., where gay men are thought to be necessarily very feminine and lesbians are thought to be necessarily very masculine). Of course, many gay men are not terribly feminine and many lesbians are not terribly masculine in comparison to their heterosexual counterparts, but the association of gayness with gender bending continues to be popular to this day.

Of course, the reality of gender presentation and identity in both LBG and heterosexual persons is far more complex. There are very "butch" straight women as well as very feminine lesbians, there are "metrosexual" straight males and masculine gay men, with all shades in between.

The LBG community does has a proud history of celebrating gender bending traditions and lifestyles (consider the examples of drag shows, camp, and butch/femme culture), but those traditions and identities are not the same as the experiences and identities of most transsexual people. Indeed, while the LBG community has celebrated certain aspects of transgender/gender-bending traditions, they often have been lukewarm or outright negative in their reactions to transsexuals. Gay and lesbian people often dislike associations of gayness with transsexuality, because most gay and lesbian people are quite happy with their bodies and do not wish to be anything other than the sex/gender they were born into. The compounded "LBGT" acronym (lesbian, bisexual, gay, transgender) can further confuse the issue for those who cannot or will not differentiate between sexual orientation and gender identity.

However, those who have studied transsexual and transgender phenomena and people in earnest have come to realize that a person's gender identity (the gender/sex they believe themselves to be) is not correlated in a predictable way to that person's sexual orientation. This idea is borne out in the observation of the diversity among trans men. As was noted in Myth #8, there is a portion of trans men who are attracted to men pre- and post-transition, and who have had little or no contact with lesbian communities (but may certainly be in contact with gay men and gay male communities). There is also a portion of trans guys who are attracted to women pre- and post-transition, who exclusively date women who identify as heterosexual, and who have never lived their lives in contact with lesbians or LBG subcultures. A portion of trans men are attracted to men and women, and may or may not spend time within LBG circles. And there are trans guys who lived some of their lives in lesbian relationships and communities prior to transition. Some retain ties with LBG communities post-transition, while some sever those ties (or are ostracized) from those communities. In short, trans men have a variety of sexual histories and identities, much like all other people.

Myth #11: It is always easy to tell who is an FTM transsexual.

Some people feel they can always tell who is a transsexual just by looking at them. Perhaps some of those people have spotted a transsexual successfully at one time or another, or perhaps they have erroneous assumptions that all transsexuals will always show tell-tale signs of their birth sex (i.e., they think wide hips, a high voice, or an androgynous appearance will always "give away" an FTM transsexual).

However, this kind of thinking fails to account for major flaws in observer bias. That is, if you don't recognize someone as being transsexual who is sitting right in front of you in the elevator or bus or grocery store, then you go right on thinking that you didn't see any transsexuals that day! Many observers do not notice transsexuals who look "normal" to them.

Asking someone to pick the transsexuals out of a crowd is like asking someone to tell you who in a room is wearing blue underwear. If the observer declares that two people are wearing blue underwear because he can see two pairs of blue shorts poking out in the crowd, he might have missed five others whose underwear simply doesn't happen to be visible.

Additionally, there is a chance of misreading a non-trans person as trans due to rigid stereotyping about the sexes. For example, just because a man happens to be very short, or happens to have narrow shoulders, doesn't mean he is trans.

Simply put, lots of trans men-- especially after years or hormone therapy-- blend right in with most men, and look quite unremarkable. Many of them can pass naked through a men's locker room easily without anyone knowing they are trans. Couple this with the fact that there are all kinds of different sizes, shapes, and kinds of men in the world, and the ability to differentiate trans and non-trans men tends to go right out the window.

Myth #12: It is known with certainty that transsexuality is caused by any of the following:

- congenital defect or heredity
- a hormone imbalance in the womb
- chemical exposure
- atypical psychological development
- physical or sexual abuse, an overbearing mother, an absent father, or other environmental factors
- an inability to cope with homosexual feelings

If anyone, including a trans person, tries to tell you that they know *with certainty* the cause of transsexuality or transgender phenomena, they are not being entirely honest with you. The truth is that we simply do not know for certain why some people are transgender or transsexual. Numerous theories exist (including all of the ones listed above and probably more)--and perhaps one or more of those theories may turn out to be true--but as yet none has come close to being proven.

While there is no known "cause" for transgender and transsexual phenomena, we do know a few things for certain. First, there is ample documented evidence of examples of cross-gender/cross-sex identification and behaviors in numerous different cultures and time periods. Not all cultures have conceptualized of sex and gender in the same manner as current Western culture. In some cases, cross-gender and other gender roles that may be considered atypical by today's Western culture have been held in high esteem. Cross-gender traditions and myths have also existed in religious traditions that pre-date Christianity. (For a few starting points on cross-gender traditions and history, check out *Cross Dressing, Sex, and*

Gender by Vern Bullough and Bonnie Bullough, *Transgender Warriors* by Leslie Feinberg (particularly the footnotes for interesting source materials), *Changing Ones: Third and Fourth Genders in Native North America* by Will Roscoe, and *Neither Man Nor Woman: The Hijras of India* by Serena Nanda.)

Second, we also know that nature sometimes produces human bodies which cannot be neatly categorized as male or female (such bodies are often labeled as intersex), as well as a diverse array of gender traits and behaviors within all sexes. Variance with regard to sex and gender can be found in humans as well as other animals. (For some interesting readings on the topic of biological, gender, and sexual diversity, check out *Evolution's Rainbow: Diversity, Gender, and Sexuality in Nature and People* by Joan Roughgarden, *The Riddle of Gender: Science, Activism, and Transgender Rights* by Deborah Rudacille, and *Sexing the Body: Gender Politics and the Construction of Sexuality* by Anne Fausto-Sterling. Add *Biological Exuberance: Animal Homosexuality and Natural Diversity* by Bruce Bagemihl if you also want to learn more about the wealth of variance in sexual activity seen in nature.)

It seems fitting that people of cross-gender and cross-sex experience or identity may be thought of as one part of natural variance in sex and gender expression, as well as a longstanding part of historical, cultural, and religious variances found throughout the world.