

Date _____

name _____

DOB _____

Patient education for transgender masculinizing hormone therapy

- Some transsexual, transgender, and gender non-conforming people choose to take hormone therapy to treat gender dysphoria and others do not.
 - This is a choice based on personal preferences and medical need.
- Hormone therapy is not required to make complete legal transition in California. (Some states or countries require specific surgery to change birth certificate information.)
- Well informed patients with realistic expectations have the best results from hormone therapy.
- If you have any questions about hormone therapy we are prepared to answer them or direct you where you can go to get more information.
 - Asking questions will not jeopardize your chance to get hormone therapy.
- Some effects of hormone therapy are permanent and irreversible.
- Masculinizing hormone therapy consists of testosterone.
 - Injection, patch, and gel forms of testosterone are safe and effective
- Other medications in addition to testosterone may be used for specific situations
- Each medication used for hormone therapy has certain expected desirable effects and certain possible adverse effects.
- Each person responds differently to each different medication.
 - Some factors that may influence the positive or negative effects of a medication include age when starting, dose, cigarette smoking, other medical problems, other medications, alcohol and drug use, the genetic background of the patient, and the risk that others close to the patient could be exposed to topical testosterone.
- Each person has individual hopes and desires for the effects of hormone therapy.
 - It is advisable that you discuss the specific effects you are hoping for with your healthcare team and others you are close to.
 - It is very important that patients and their medical provider discuss expectations and limitations of each type of therapy.
- Testosterone can have some serious side effects.
 - It is important that every patient considering hormone therapy understand how to minimize the risk of these side effects and how to identify the early signs of them.
- Some side effects are common others are less common.
 - Side effects are reviewed below starting with common side effects and then less common and rare side effects.
- Some possible side effects are rare or scientifically possible but we have not proven that they occur

Education about testosterone

- Testosterone is the hormone responsible for male secondary sexual characteristics
- Testosterone has been used for masculinizing hormone therapy.
- The effects of testosterone include
 - Cessation of menses
 - Voice change to a male range (irreversible)
 - Increased hair growth on face and body, (irreversible)
 - Coarsening of hair and increased growth of hair may occur on the chest, arms and legs, abdomen, back, buttocks, and ears
 - Increased muscular mass & strength (partly reversible)
 - Redistribution of body fat (partly reversible)
 - Clitoral enlargement (irreversible)
- The effects of testosterone are limited because
 - No effect on height
 - No effect on breast size or composition
 - Clitoral growth is not adequate for insertive intercourse
- Testosterone can result in irreversible changes relatively rapidly
 - Lower doses appear to result in the same amount of changes as higher doses but take a longer time
 - Changes on lower and higher doses after 6 months were equal in 1 study
 - It can take 2 months or longer for the effects of testosterone to become noticeable. No one can predict how fast – or how much – change will happen.
 - Starting with a low dose and increasing it if needed is a good strategy to avoid adverse effects
 - Starting with lower doses may be advisable for younger patients or those with some ambivalence about the amount of body changes they want
 - This strategy might help to avoid irreversible changes that these patients could regret.
 - Some patients wish rapid changes, especially cessation of menses, and higher initial doses may be advisable.
- Maximum changes will usually occur 2-3 years after being on average to high doses of testosterone.
 - Changes may take longer on lower doses but reach the same maximum point.
 - After the body's maximum possible changes have occurred it is necessary to maintain testosterone to maintain changes and protect bone density (prevent osteoporosis)

Mood, behavioral, and sexual effects

- Effects on mood, behavior and sexuality are very variable between patients and at different times during hormone therapy
 - It is very hard to separate effects of testosterone and general effects of transitioning
 - Effects are usually more extreme in the first few months of testosterone therapy and even out after the first year
- Mood changes
 - It is advisable to be in the best possible psychological condition when starting hormone therapy or changing doses

- Some people find help by getting support from family or friends, seeking support from others in the transgender community, working with a therapist, and avoiding other severe stresses at the same time
- More contentment
- Greater extroversion
- Less somatization
- Decrease in affective intensity
- Increased libido
- Changes in sexual interest / orientation
 - Increased risk behavior for STD's including HIV in population that may not have received HIV prevention services
- Emotional changes especially when starting or stopping or changing dose
 - Exaggerated mood changes at beginning and end of dosing for injected testosterone
 - It is advisable when possible to slowly increase or decrease dose rather than make sudden changes in dosage.
- Relationship Challenges
- Increased aggressiveness
 - Despite popular myths aggressiveness is not common even on high doses of testosterone
 - Aggressiveness due to testosterone is a greater risk for people with previous history of poor impulse control
 - Treatment (with medications and/or psychotherapy) of ADHD, bipolar disorder, and other conditions causing decreased impulse control is advisable before starting or increasing testosterone dose

Testosterone side effects

Common side effects

- Increased weight
 - This can be helped by increased exercise and diet changes
- Oily skin
- Acne
 - At times this is so severe it may cause scarring and require medical interventions
- Vaginal atrophy
 - May cause dryness and thinning that results in pain or bleeding with vaginal penetration
 - In theory may increase risk of acquiring STD's
 - This is usually treatable with lubricants or in some cases use of a topical estrogen
- Male pattern baldness (irreversible)
- Emotional changes
- Decreased HDL "good" cholesterol level
- Skin irritation with patch
 - Some people are allergic to the adhesive or other components of the testosterone patch
 - Changing to a different brand of patch or gel can sometimes help

- Exposure of family members to testosterone with gel
 - This may cause unwanted masculinization in female partner or kids
 - This is avoidable by following instructions about use of gel
- Sweating
- Snoring
- Insomnia
- Reduced fertility (partly reversible)
 - See education about fertility below

Less common side effects

- peripheral edema, increased blood pressure, erythrocytosis (Increased red blood cell counts), transiently abnormal liver enzymes, dyslipidemia (abnormal cholesterol and triglyceride levels), obstructive sleep apnea, skin irritation with gels, skin ulceration with patch.
 - These problems can generally be prevented or treated medically if they occur.
 - It is usually not necessary to eliminate testosterone therapy
- Regret of irreversible effects
 - Regret is not common in people with gender dysphoria treated with testosterone
 - Regret can be reduced by good education and preparation before starting testosterone
 - Discussing concerns and asking questions to your health care providers is the best way to have accurate expectations about the effects of testosterone therapy
 - Asking questions will not jeopardize your chance of getting hormones

Rare side effects

- Hypertension, liver damage, increased risk of cardiovascular disease, increased risk of breast cancer, increased risk of uterine cancer, increased risk of ovarian cancer
 - Although these are rare or theoretical possibilities appropriate monitoring is necessary especially in patients who have additional risk factors

Patient education about fertility

- Hormone therapy is not a reliable means of contraception and other birth control methods should be used for patients who have receptive vaginal intercourse with men who produce sperm
- Masculinizing hormone therapy may interfere with egg production and many other aspects of fertility
- Permanent loss of fertility due to testosterone is theoretically possible
- Egg, embryo, or ovary tissue banking may be possible for those who wish to maintain their fertility
 - These techniques are complex and involve hormone manipulation and minor surgery
 - These techniques are most reliable before starting hormone therapy
 - It is possible to stop hormone therapy for a period of time and then collect and bank eggs
 - It may take months for egg production after stopping hormone therapy

- It may be possible to preserve ovary tissue at the time of hysterectomy even in patients who have been on long-term testosterone. The technique to recovery fertile eggs from this tissue are experimental
- These techniques are expensive and may not be covered by insurance

All of the information on this form has been reviewed with me and I understand it and have had any questions answered

patient / client signature

I have reviewed all of the information on this form with my patient / client and I am confident that my patient / client understands this information

Clinician name and signature