## Feminizing Hormone Therapy
For Adolescents

Southern California Transgender Care Program
Updated April 2019

<table>
<thead>
<tr>
<th>Effects of Feminizing Hormones</th>
<th>Expected Onset</th>
<th>Expected Max Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreased libido</td>
<td>1-3 months</td>
<td>1-2 years</td>
</tr>
<tr>
<td>Decreased spontaneous erections</td>
<td>1-3 months</td>
<td>3-6 months</td>
</tr>
<tr>
<td>Body fat redistribution</td>
<td>3-6 months</td>
<td>2-5 years</td>
</tr>
<tr>
<td>Softening of skin / less oily</td>
<td>3-6 months</td>
<td>Variable</td>
</tr>
<tr>
<td>Breast growth*</td>
<td>3-6 months</td>
<td>2-3 years</td>
</tr>
<tr>
<td>Decreased muscle mass</td>
<td>3-6 months</td>
<td>1-2 years</td>
</tr>
<tr>
<td>Decreased testicular volume*</td>
<td>3-6 months</td>
<td>2-3 years</td>
</tr>
<tr>
<td>Thinning and slowed growth of facial/body hair</td>
<td>6-12 months</td>
<td>&gt;3 years</td>
</tr>
<tr>
<td>Decreased sperm production*</td>
<td>Variable</td>
<td>Variable</td>
</tr>
<tr>
<td>Sexual dysfunction (erection/ejaculation)</td>
<td>Variable</td>
<td>Variable</td>
</tr>
<tr>
<td>Slowing of scalp baldness (no regrowth)</td>
<td>Variable</td>
<td>Variable</td>
</tr>
<tr>
<td>Voice changes</td>
<td>None</td>
<td>n/a</td>
</tr>
</tbody>
</table>

* Changes may be irreversible even after hormones are stopped
Timing will vary in each individual. Ranges given are based on clinical experience.

### Common side effects:
- Weight gain
- Mood swings

### Risks may include:
- Blood clots that can be life-threatening
- Gallstones
- Elevated prolactin levels

* Risk is affected by patient’s personal medical history and family history
What is estrogen therapy?

- Hormone therapy is a type of gender-affirming medical care that some transgender, nonbinary and gender expansive people use to affirm their identity and bring about physical and emotional changes.

Do I need to take estrogen?

- For some people the changes that come with estrogen can be gender-affirming and support their gender identity and expression. Other people feel that estrogen is not needed to express their gender identity.
- Hormone therapy is not required to change your legal gender marker.

How is it used?

- The type of delivery method, dose and time on hormones is an individual decision and varies based upon each person’s goals and how their body responds.
- No one can predict how fast or how much change will happen for each individual. One person’s experience may be very different from another’s.
- Taking higher doses of estrogen than prescribed does not increase the rate of changes and may increase the risk of serious side effects including life-threatening blood clots.
- Some people take estrogen regularly over a lifetime, others may choose to take estrogen for a shorter period of time or intermittently under their physician’s supervision.

What does estrogen do?

- It may take several months after beginning estrogen to notice changes, though some people may experience changes more quickly or slowly.
- It may take 2-5 years for all physical changes to take place.
- Some changes from estrogen are permanent, even if you stop taking it and other changes are not and will reverse once off the medication.

What will not change with estrogen?

- Facial hair if already present may become thinner and grow more slowly but may not disappear completely.
- Deeper voices will not rise.
- A developed Adam’s apple with not shrink.
- Appearance of the genitals. Some decrease in penis or testes size may occur but will not create female genitalia.
- Genital appearance will not change to female genitalia. Penis and testicle size may shrink somewhat.

What will estrogen do to my fertility?

- Decreases sperm production and may result in permanent infertility
- It is possible to produce sperm after stopping hormone blockers and estrogen but this varies
- Estrogen is not a reliable form of birth control
- If a puberty blocker and/or estrogen were started prior to the maturation of the testes, then a period of discontinuation of blocker and estrogen will be needed to allow testosterone driven puberty to mature sperm for reproductive purposes.
If I am interested in taking estrogen, what’s next?

• Your provider will review both the potential benefits and risks of hormone therapy with you to help you know what changes to expect, address your concerns and answer your questions.

• Your provider will ask you about other prescription medications and substances you take including diet supplements and herbs, alcohol, nicotine, marijuana, recreational/street drugs and other hormones. Letting your provider know about everything you use to will help them take care of you safely.

How is estrogen administered and what are my options?

ORAL

• Recommended dose is taken once daily or twice a day

• Self-administered at home

INTRAMUSCULAR INJECTION

• Delivered via a needle into a large muscle group, usually the thigh or buttock areas

• Recommended dose is typically every 1-2 weeks

• Can be self-administered at home or at Kaiser

PATCHES

• Adhesive patch placed on any part of the body with little hair, usually the stomach, thigh or buttocks. Some people find the adhesive irritating to the skin

• Physical changes may occur more slowly than injection methods

• Lowest risk of blood clots

• Self-administered at home

What are some other medications commonly used for gender-affirming treatment?

• Puberty blockers like leuprolide (Lupron) and histrelin (Vantas) are medications that block your body’s masculinizing hormones. It will not cause feminizing effects. Puberty blockers may be used alone or with estrogen based on your specific needs.

• Spironolactone blocks the action of your remaining testosterone, which your body still produces even on the optimal dose of estrogen.

Important tips:

Estrogen should be kept in a safe location

Do not share needles with anyone

Dispose of needles safely after use

Please take medication only as prescribed and discuss changes in dose, method of delivery and stopping hormones with your provider first.

Remember to follow through on necessary blood tests and appointments.

Patients are expected to continue care with a transgender mental health therapist and/or regularly attend a transgender support group in order to continue hormone treatment.