Integrated Transgender Program – Anschutz Medical Campus

Understanding Feminizing Gender-affirming Hormone Therapy

This form is for people who want gender-affirming hormone therapy. This lets you develop a more feminine gender expression and to reduce gender dysphoria. We will use medical words for body parts that may be triggering, so please let us know if you have any concerns. This form will be uploaded into your chart for medical providers and you to use after today's visit.

If you do not understand the details below, please ask us to make it more clear.

Introduction
- Feminizing gender-affirming hormone therapy includes estrogen. Most often it is given with a testosterone blocker. And, when prescribed in the correct way, these medicines can improve mental health and quality of life.
- Gender-affirming hormone therapy may have unknown effects that could be permanent (never goes away).
- Everyone is different. There is no way to predict what your response to hormones will be. The “right” doses for you may not be the same as for someone else. We follow widely recognized guidelines to keep you safe.

Feminizing Effects
- These potential changes may reverse or go away if feminizing medicines are stopped:
  - Loss of muscle and strength, mainly in the arms.
  - Weight gain
  - More pear-shape body such as more fat to your:
    - Buttocks
    - Hips
    - Thighs
    - Less fat to belly
  - Softer skin
  - Hair on the face or body may become lighter and grow slower but may not fully go away
  - Male-pattern baldness of the scalp may slow down or stop, but hair will most often not regrow
  - Reduced sex drive
  - Less erections or strength of erections
  - Semen will become lighter and there will be less of it
  - Changes in mood or thinking
- These potential changes may be permanent even if feminizing medicines are stopped:
  - Breast growth and development
  - Testes shrinking and becoming softer
  - Testes making less sperm
  - Becoming sterile (cannot get someone pregnant)
- Your face and body will change but may not completely become as feminine as you would like. You will still have an Adam's apple and the shape of your face may not change.
- Most of the time, the timing of expected effects of feminizing gender-affirming hormone therapy are as follows:
### Understanding Feminizing Gender-affirming Hormone Therapy

<table>
<thead>
<tr>
<th>Effect</th>
<th>Onset</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreased sexual desire</td>
<td>1 to 3 months</td>
<td>3 to 6 months</td>
</tr>
<tr>
<td>Decreased spontaneous erections</td>
<td>1 to 3 months</td>
<td>3 to 6 months</td>
</tr>
<tr>
<td>Decrease in muscle mass/strength</td>
<td>3 to 6 months</td>
<td>1 to 2 years</td>
</tr>
<tr>
<td>Redistribution of body fat</td>
<td>3 to 6 months</td>
<td>2 to 3 years</td>
</tr>
<tr>
<td>Breast growth</td>
<td>3 to 6 months</td>
<td>2 to 3 years</td>
</tr>
<tr>
<td>Decreased testicular volume</td>
<td>3 to 6 months</td>
<td>2 to 3 years</td>
</tr>
<tr>
<td>Softening of skin and less oiliness</td>
<td>3 to 6 months</td>
<td>Unknown</td>
</tr>
<tr>
<td>Decreased terminal hair growth</td>
<td>6 to 12 months</td>
<td>More than 3 years</td>
</tr>
<tr>
<td>Male sexual dysfunction</td>
<td>Variable</td>
<td>Variable</td>
</tr>
<tr>
<td>Scalp hair loss</td>
<td>Variable</td>
<td>—</td>
</tr>
<tr>
<td>Decreased sperm production</td>
<td>Unknown</td>
<td>More than 3 years</td>
</tr>
<tr>
<td>Voice changes</td>
<td>None</td>
<td>—</td>
</tr>
</tbody>
</table>

### Potential Risks
- If your medical provider suspects that you have any condition that could be dangerous to your health, we will check it. This must be done before starting or staying on therapy to make sure it is safe for you.
- Common side effects of estradiol include:
  - Headache
  - Nausea
  - Vomiting
  - Gallstones (most often with oral estradiol)
- The estradiol patch may cause some minor skin irritation. The estradiol injection or shot may cause some reactions (mild skin irritation) at the site. This may lead to unstable estradiol levels (“peaks” or highs and “troughs” or lows) that make monitoring and dosing difficult.
- The testosterone blocker, spironolactone, can cause:
  - High blood potassium levels
  - Dizziness from lower blood pressure
  - Increased urination
  - Possible other side effects
- Other types of testosterone blockers may be used if you have side effects or cannot take spironolactone. These may have other side effects that can be discussed with your provider.
- Estradiol can increase blood pressure and triglycerides. We monitor these at each visit.
- Estradiol may increase the risk of blood clots, stroke, and heart attack. These risks are higher in people who:
  - Smoke tobacco
  - Are overweight or obese
  - Are over the age of 40
  - Have a history of blood clots
  - Have a history of certain cancers (like breast or prostate cancer)
- Gender-affirming hormone therapy may cause changes in your emotions and moods. Your medical provider can help you find support services and other resources to explore and cope with these changes.

### More to Consider
- Routine breast cancer screening with a mammogram is recommended. You should start these after the age of 50 years and after 5 or more years of feminizing gender-affirming hormone therapy. Screening may begin earlier based on family history.
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- Estradiol helps keep your bones healthy. But bone density may be monitored before starting feminizing gender-affirming hormone therapy if you have risk factors, or if you stop estradiol and have had your testes removed.
- Estrogen and testosterone blockers will not protect against sexually transmitted infections or HIV. Condoms or other barrier methods should be used when appropriate.
  - We can provide information about HIV pre-exposure prophylaxis (PrEP).
- You may or may not be able to get someone pregnant. We can talk about saving sperm for the future (e.g., sperm banking) if you are interested.
- If you have your testes removed, testosterone blockers can be stopped, and estradiol dose can often be lowered.
- We can also provide resources about surgery and voice therapy if you would like to know more.

Monitoring

- It is important to have regular physical exams and lab tests to monitor for an adverse reaction to the medicines and to continue good health care and preventive screening exams. These include:
  - Hormone levels
  - Electrolytes
  - Kidney tests
  - Cholesterol levels
- We recommend you follow up every 3 to 4 months during the first year, then every 6 to 12 months.
  - If you do not see your medical provider within 12 months, or have recommended lab tests, we may stop prescribing treatment.
- The Endocrine Society recommends that serum estradiol levels are in the physiologic female range and do not exceed 100 to 200 pg/dL. Serum total testosterone levels are in the physiologic female range: less than 50 ng/dL.
- To avoid drug interactions and adverse reactions, it is very important to tell your provider about any drug you might be taking. This includes:
  - Non-prescription hormones
  - Dietary supplements
  - Herbs
  - Drugs
  - Medicines
- You can choose to stop taking these medicines at any time. And your medical provider can stop treatment if the medicines are causing you harm.

Please print and sign below to agree that you understand the above information. You can use your preferred name.

**DO NOT SIGN UNLESS YOU HAVE READ AND THOROUGHLY UNDERSTAND THIS FORM.**

<table>
<thead>
<tr>
<th>Name of patient (printed)</th>
<th>Relationship to patient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Signature of patient or legally authorized representative</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>

**Interpretation:** Discussion interpreted for patient/representative by (name) (date/time)

**References**
- World Professional Association for Transgender Health, Standards of Care, v7: https://www.wpath.org/publications/soc
- University of California, San Francisco: https://transcare.ucsf.edu/guidelines/feminizing-hormone-therapy