

## Pediatric Endocrinology Fact Sheet

# Feminizing Treatment for Transgender Females

### What is feminizing therapy?

Some transfemale adolescents and adults (individuals who were assigned male at birth and who identify and may live as females) choose to use medications or have surgery, that induce physical changes that simulate female puberty in order to align their physical body with their gender identity. Feminizing therapy is recommended by the Pediatric Endocrine Society for adolescents with gender dysphoria who meet specific criteria (Endocrine Society Guidelines 2017).

### Who should receive feminizing therapy?

Feminizing therapy is used in transgender female adolescents and adults who, after thorough discussions with their medical and mental health care providers, decide they would like to use medications to cause physical changes to their bodies typical of female puberty. Some transgender females do not wish to use feminizing therapy.

Transgender adolescents receiving feminizing therapy are usually prescribed estrogen in gradually increasing doses, mimicking female puberty. Once maintenance doses are reached, estrogen is usually continued through adulthood.

### What are the available forms of feminizing therapy?

Estrogen (estradiol) is the hormone that causes physical changes to the body related to female puberty. Estrogen can be given as a pill taken once or twice a day, as a patch that is applied to the skin once or twice a week or injections given every 1-2 weeks.

Financial coverage or payment by insurance companies can be difficult to obtain. Nevertheless, more insurance companies are covering the costs. It is important to review with your insurance carrier benefits coverage for this service.

### What are the expected effects of feminizing therapy?

Estrogen causes breast development. Breasts take 2-3 years to develop to their full size. Even if estrogen is stopped, the breast tissue that has developed will remain. Other changes that one may experience by taking estrogen include softer skin, decreased muscle mass and muscle strength. Body hair growth may grow more slowly but it will likely not stop completely even after years on medication. Fat may redistribute in a more feminine pattern (increased on buttocks, hips and thighs). Estrogen does not cause voice pitch to rise or Adam's apple to shrink. In a transfemale adolescent who has not undergone a complete (male) puberty, estrogen can also decrease the final height.

Taking estrogen will make the testicles produce less testosterone, which can affect overall sexual function.

Estrogen can also permanently affect fertility by affecting the testicles' ability to produce sperm. The ability to make sperm normally may or may not come back even after stopping estrogen. However, taking estrogen does not always cause the testicles to stop making sperm. Therefore, if pregnancy is not desired while taking estrogen, it is very important for people having sex that could result in egg meeting sperm, to use contraceptive methods to prevent pregnancy. It is important to have a discussion with your medical providers about options available for preserving fertility before starting estrogen. Some transgender adolescents and adults choose to freeze sperm before starting estrogen so that they may be able to have biological children in the future.

### What are the possible side effects of feminizing therapy?

Taking estrogen increases the risk of blood clots, which can result in clots traveling to the lungs; or clots may go to the brain causing strokes or the heart leading to and heart attacks. The risk of blood clots increases when a person smokes. Women taking estrogen are advised to avoid smoking tobacco completely. Taking estrogen can increase the risk for diabetes, heart disease and high blood pressure. Estrogen can cause headaches, migraines, nausea or vomiting. Occasionally, there may be milky nipple discharge. It is strongly advised to discuss with your clinician any possible side effects.

It is important not to take more estrogen than prescribed, as this increases health risks. Taking more estrogen than prescribed will not make feminization happen more quickly or increase the degree of change.

### What kind of feminizing surgeries are there?

Not every transition involves surgery, but for some people it is a necessary part of their journey. Some transgender women have breast augmentation, some have "tracheal shave"- procedure to remove Adam's apple. Others may have surgery to remove penis and testes and to create labia and vagina. In most cases, surgery is not recommended before attaining legal adult age (18 in the US). Some transgender women choose not to have surgery.

*Pediatric Endocrine Society*

**PES** PEDIATRIC ENDOCRINE SOCIETY

*Copyright © 2018 Pediatric Endocrine Society. All rights reserved. The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.*