

## **D. Conversion Therapy/Sexual Orientation Change Efforts**

### **AACAP Policy Statement on Conversion Therapy (February 2018)**

This Statement from the Academy summarizes the limited evidence for conversion, or “reparative” therapy, and explains why the Academy opposes this harmful practice.

### **American Psychological Association- Report of an APA Taskforce (2009) entitled *Appropriate Therapeutic Responses to Sexual Orientation***

This report, which focuses on sexual orientation change efforts exclusively (not gender identity) is largely viewed upon as the most comprehensive literature review and evidence based guide regarding the harmful methodologies associated with conversion therapy practices.

### **Substance Abuse and Mental Health Services Administration, *Ending Conversion Therapy: Supporting and Affirming LGBTQ Youth*. HHS Publication No. (SMA) 15-4928. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.**

This report was produced after convening a panel of experts to obtain consensus statements on defining conversion therapy, and broadening the definition beyond sexual orientation. It includes statements on gender identity across development and summarizes existing research on sexual orientation and gender identity. The take home message in this report is that a priori attempts to change a person’s sexual orientation, gender identity, and/or gender expression are harmful.

### **Williams Institute at UCLA School of Law - *Conversion Therapy and LGBT Youth* (January 2018)**

This report provides information on state-specific conversion therapy bans, people affected by conversion therapy, and perspectives on the issue.

[Return to Top](#)

## **E. Gender Dysphoria in Childhood & Adolescence**

### **Aitken, M., Vanderlaan, D. P., Wasserman, L., Stojanovski, S., & Zucker, K. J. (2016). *Self-Harm and Suicidality in Children Referred for Gender Dysphoria. Journal of the American Academy of Child & Adolescent Psychiatry, 55(6), 513-520.***

In this study, investigators examine self-harm, suicidal ideation, and suicidal behavior (by parent report) in children with gender dysphoria. They report that children with gender dysphoria showed an increase in self-harm and suicidality as they got older.

### **Dhejne, C., Vlerken, R. V., Heylens, G., & Arcelus, J. (2016). *Mental health and gender dysphoria: A review of the literature. International Review of Psychiatry, 28(1), 44-57.***

This article provides an overview of existing studies on psychiatric disorders in transgender patients. The authors suggest that, generally, trans patient populations are at higher risk of psychiatric morbidity, though symptoms improve with affirming care and mental health care.

Durwood, L., Mclaughlin, K. A., & Olson, K. R. (2017). Mental Health and Self-Worth in Socially Transitioned Transgender Youth. *Journal of the American Academy of Child & Adolescent Psychiatry*,56(2).

In this study, researchers leading the TransYouth Project examined depression, anxiety, and self worth in children 9-14 years old who had socially transitioned. Results showed that transgender children had similar rates of depression and marginally higher rates of anxiety.

Leibowitz, S., & Vries, A. L. (2016). Gender dysphoria in adolescence. *International Review of Psychiatry*,28(1), 21-35.

In this article, Dr. Leibowitz and Dr. de Vries provide an overview of literature pertaining to care for adolescents with gender dysphoria.

Olson, K. R. (2016). Prepubescent Transgender Children: What We Do and Do Not Know. *Journal of the American Academy of Child & Adolescent Psychiatry*, 55(3).

In this clinical perspectives article, Dr. Olson reviews existing perspectives and data on gender dysphoria as well as methods of past studies.

Olson, K. R., Durwood, L., Demeules, M., & Mclaughlin, K. A. (2016). Mental Health of Transgender Children Who Are Supported in Their Identities. *Pediatrics*, 137(3).

This study published in *Pediatrics* examines depression and anxiety in transgender children who have socially transitioned. The research team concludes that transgender children who socially transition and receive support for their gender identities demonstrate normative rates of depression and minimal elevations in anxiety.

Sharon, N. (2016). Psychiatrys Role in Supporting Healthy Development in Gender Diverse Children. *Psychiatric Annals*, 46(6), 355-360.

This article provides an overview of treatment challenges related to gender diversity and gender dysphoria.

[Return to Top](#)

## **F. Trauma-Informed Care**

### **American Academy of Pediatrics - Childhood Exposure to Violence**

This site provides a general overview for approaching traumatic events in youth.

### **The National Child Traumatic Stress Network (NCTSN) Resources:**

- **LGBTQ youth and Sexual abuse: Information for Mental Health Professionals**  
This brief guide provides an overview of terminology and approaches to trauma in LGBTQ youth.
- **LGBTQ: Voices of Trauma, Lives of Promise (video)**  
This video is geared for teens and includes LGBTQ teens discussing their identities and how they



strengthened resilience.

- **Safe Places, Safe Spaces: Creating Safe and Welcoming Environments for Traumatized LGBTQ Youth**

This guide and video provide an overview of practices for creating a safe space for LGBTQ youth who have experienced trauma.

- **Transforming Trauma in LGBTQ Youth**

The NCTSN Learning Center provides detailed recommendations for providers working with LGBTQ youth with trauma and covers topics such as sexual health, clinical competency, and welcoming spaces.

#### **Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) Resources:**

These resources provide training for a key evidence-based intervention for children and adolescents impacted by trauma. The implementation manual for LGBTQ youth enables providers to tailor the intervention specifically to LGBTQ youth and their caregivers.

- **Cohen, J.A, Mannarino, A.P., & Deblinger, E. (2017). *Treating Trauma and Traumatic Grief in Children and Adolescents*. New York: The Guilford Press.**  
This brief guide provides an overview of terminology and approaches to trauma in LGBTQ youth.
- **Cohen, J.A, Mannarino, A.P., Wilson, K. & Zinny, A. (2018). *Implementing Trauma-Focused Cognitive Behavioral Therapy for LGBTQ Youth and Their Caregivers*. Pittsburgh, PA: Allegheny Health Network. (Free)**
- **TF-CBT Web 2.0: A course for Trauma-Focused Cognitive Behavioral Therapy.**

[Return to Top](#)

### **G. Training Resources & Curricula on LGBTQ Mental Health**

#### **Association of LGBTQ Psychiatrists (AGLP) LGBT Mental Health Syllabus**

This website teaches psychiatry residents (as well as all providers of clinical care) about “caring for lesbian, gay, bisexual, transgender, and intersex patients.”

#### **Fenway Institute**

This list summarizes programs and centers, grants and funding opportunities, data sources, and professional organizations supporting research in LGBT research at the graduate and post-doctoral levels.

#### **National LGBT Health Education Center (Fenway Institute) Webinars & Video Training (CME available)**

This comprehensive resource center provides educational modules on LGBT health, youth, older adults,

people of color, families, PReP, HIV/STI prevention and treatment, primary care, behavioral health, cancer, data collection, and organizational change.

#### **SAMHSA and Health Resources and Services Administration (HRSA) – List of professional training curricula**

SAMHSA provides this list of professional trainings for behavioral health and primary care providers in LGBT health and well being. Topics covered include effective communication, substance use treatment, elders, and HIV.

#### **Stanford University - *Health Across the Gender Spectrum* Online Course (Free)**

This case-based online course is a beginner course that has several videos embedded into three modules that takes three hours to complete. It is intended for families, educators, and providers teaches about gender identity and the gender spectrum and provides tips to create a more supportive environment.

#### **UCSF Lesbian, Gay, Bisexual and Transgender Resource Gender - Education & Training**

UCSF's LGBT Resource Center curates this list of articles, training, and education materials to “help promote education and awareness of gender identity, gender expression, and sexual orientation.”

[Return to Top](#)

## **GENDER & SEXUALITY RESOURCES**

---

- AACAP Gender and Sexuality Resources
- Gender and Sexuality Development
- Clinical Guidelines and Training for Providers, Professionals, and Trainees
- LGBTQ Specific Topics



# Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society\* Clinical Practice Guideline FREE

Wylie C Hembree, Peggy T Cohen-Kettenis, Louis Gooren, Sabine E Hannema, Walter J Meyer, M Hassan Murad, Stephen M Rosenthal, Joshua D Safer, Vin Tangpricha, Guy G T'Sjoen

[Author Notes](#)

*The Journal of Clinical Endocrinology & Metabolism*, Volume 102, Issue 11, 1 November 2017, Pages 3869–3903, <https://doi.org/10.1210/jc.2017-01658>

**Published:** 13 September 2017 **Article history** ▼

A correction has been published: *The Journal of Clinical Endocrinology & Metabolism*, Volume 103, Issue 2, February 2018, Page 699, <https://doi.org/10.1210/jc.2017-02548>

A correction has been published: *The Journal of Clinical Endocrinology & Metabolism*, Volume 103, Issue 7, July 2018, Pages 2758–2759, <https://doi.org/10.1210/jc.2018-01268>

## Abstract

### Objective

To update the “Endocrine Treatment of Transsexual Persons: An Endocrine Society Clinical Practice Guideline,” published by the Endocrine Society in 2009.

### Participants

The participants include an Endocrine Society–appointed task

## **Evidence**

This evidence-based guideline was developed using the Grading of Recommendations, Assessment, Development, and Evaluation approach to describe the strength of recommendations and the quality of evidence. The task force commissioned two systematic reviews and used the best available evidence from other published systematic reviews and individual studies.

## **Consensus Process**

Group meetings, conference calls, and e-mail communications enabled consensus. Endocrine Society committees, members and cosponsoring organizations reviewed and commented on preliminary drafts of the guidelines.

## **Conclusion**

Gender affirmation is multidisciplinary treatment in which endocrinologists play an important role. Gender-dysphoric/gender-incongruent persons seek and/or are referred to endocrinologists to develop the physical characteristics of the affirmed gender. They require a safe and effective hormone regimen that will (1) suppress endogenous sex hormone secretion determined by the person's genetic/gonadal sex and (2) maintain sex hormone levels within the normal range for the person's affirmed gender. Hormone treatment is not recommended for prepubertal gender-dysphoric/gender-incongruent persons. Those clinicians who recommend gender-affirming endocrine treatments—appropriately trained diagnosing clinicians (required), a mental health provider for adolescents (required) and mental health professional for adults (recommended)—should be knowledgeable about the diagnostic criteria and criteria for gender-affirming treatment, have sufficient training and experience in assessing psychopathology, and be willing to participate in the ongoing



add gender-affirming hormones after a multidisciplinary team has confirmed the persistence of gender dysphoria/gender incongruence and sufficient mental capacity to give informed consent to this partially irreversible treatment. Most adolescents have this capacity by age 16 years old. We recognize that there may be compelling reasons to initiate sex hormone treatment prior to age 16 years, although there is minimal published experience treating prior to 13.5 to 14 years of age. For the care of peripubertal youths and older adolescents, we recommend that an expert multidisciplinary team comprised of medical professionals and mental health professionals manage this treatment. The treating physician must confirm the criteria for treatment used by the referring mental health practitioner and collaborate with them in decisions about gender-affirming surgery in older adolescents. For adult gender-dysphoric/gender-incongruent persons, the treating clinicians (collectively) should have expertise in transgender-specific diagnostic criteria, mental health, primary care, hormone treatment, and surgery, as needed by the patient. We suggest maintaining physiologic levels of gender-appropriate hormones and monitoring for known risks and complications. When high doses of sex steroids are required to suppress endogenous sex steroids and/or in advanced age, clinicians may consider surgically removing natal gonads along with reducing sex steroid treatment. Clinicians should monitor both transgender males (female to male) and transgender females (male to female) for reproductive organ cancer risk when surgical removal is incomplete. Additionally, clinicians should persistently monitor adverse effects of sex steroids. For gender-affirming surgeries in adults, the treating physician must collaborate with and confirm the criteria for treatment used by the referring physician. Clinicians should avoid harming individuals (via hormone treatment) who have conditions other than gender dysphoria/gender incongruence and who may not

**Issue Section:** [Reproductive Biology and Sex-Based Medicine](#)

## Summary of Recommendations

---

### 1.0 Evaluation of youth and adults

1.1. We advise that only trained mental health professionals (MHPs) who meet the following criteria should diagnose gender dysphoria (GD)/gender incongruence in adults: (1) competence in using the Diagnostic and Statistical Manual of Mental Disorders (DSM) and/or the International Statistical Classification of Diseases and Related Health Problems (ICD) for diagnostic purposes, (2) the ability to diagnose GD/gender incongruence and make a distinction between GD/gender incongruence and conditions that have similar features (*e.g.*, body dysmorphic disorder), (3) training in diagnosing psychiatric conditions, (4) the ability to undertake or refer for appropriate treatment, (5) the ability to psychosocially assess the person's understanding, mental health, and social conditions that can impact gender-affirming hormone therapy, and (6) a practice of regularly attending relevant professional meetings. (Ungraded Good Practice Statement)

1.2. We advise that only MHPs who meet the following criteria should diagnose GD/gender incongruence in children and adolescents: (1) training in child and adolescent developmental psychology and psychopathology, (2) competence in using the DSM and/or the ICD for diagnostic purposes, (3) the ability to make a distinction between GD/gender incongruence and conditions that have similar features (*e.g.*, body dysmorphic disorder), (4) training in diagnosing psychiatric conditions, (5) the



meetings, and (8) knowledge of the criteria for puberty blocking and gender-affirming hormone treatment in adolescents.

(Ungraded Good Practice Statement)

1.3. We advise that decisions regarding the social transition of prepubertal youths with GD/gender incongruence are made with the assistance of an MHP or another experienced professional.

(Ungraded Good Practice Statement).

1.4. We recommend against puberty blocking and gender-affirming hormone treatment in prepubertal children with GD/gender incongruence. (1 | ⊕ ⊕ ○ ○)

1.5. We recommend that clinicians inform and counsel all individuals seeking gender-affirming medical treatment regarding options for fertility preservation prior to initiating puberty suppression in adolescents and prior to treating with hormonal therapy of the affirmed gender in both adolescents and adults. (1 | ⊕ ⊕ ⊕ ○)

## 2.0 Treatment of adolescents

2.1. We suggest that adolescents who meet diagnostic criteria for GD/gender incongruence, fulfill criteria for treatment, and are requesting treatment should initially undergo treatment to suppress pubertal development. (2 | ⊕ ⊕ ○ ○)

2.2. We suggest that clinicians begin pubertal hormone suppression after girls and boys first exhibit physical changes of puberty. (2 | ⊕ ⊕ ○ ○)

2.3. We recommend that, where indicated, GnRH analogues are used to suppress pubertal hormones. (1 | ⊕ ⊕ ○ ○)

2.4. In adolescents who request sex hormone treatment (given this is a partly irreversible treatment), we recommend initiating

capacity to give informed consent, which most adolescents have by age 16 years. (1 |⊕⊕○○).

2.5. We recognize that there may be compelling reasons to initiate sex hormone treatment prior to the age of 16 years in some adolescents with GD/gender incongruence, even though there are minimal published studies of gender-affirming hormone treatments administered before age 13.5 to 14 years. As with the care of adolescents ≥16 years of age, we recommend that an expert multidisciplinary team of medical and MHPs manage this treatment. (1 |⊕○○○)

2.6. We suggest monitoring clinical pubertal development every 3 to 6 months and laboratory parameters every 6 to 12 months during sex hormone treatment. (2 |⊕⊕○○)

### **3.0 Hormonal therapy for transgender adults**

3.1. We recommend that clinicians confirm the diagnostic criteria of GD/gender incongruence and the criteria for the endocrine phase of gender transition before beginning treatment. (1 |⊕⊕⊕○)

3.2. We recommend that clinicians evaluate and address medical conditions that can be exacerbated by hormone depletion and treatment with sex hormones of the affirmed gender before beginning treatment. (1 |⊕⊕⊕○)

3.3. We suggest that clinicians measure hormone levels during treatment to ensure that endogenous sex steroids are suppressed and administered sex steroids are maintained in the normal physiologic range for the affirmed gender. (2 |⊕⊕○○)

3.4. We suggest that endocrinologists provide education to transgender individuals undergoing treatment about the onset and time course of physical changes induced by sex hormone treatment. (2 |⊕○○○)



## **4.0 Adverse outcome prevention and long-term care**

4.1. We suggest regular clinical evaluation for physical changes and potential adverse changes in response to sex steroid hormones and laboratory monitoring of sex steroid hormone levels every 3 months during the first year of hormone therapy for transgender males and females and then once or twice yearly. (2 |⊕⊕○○)

4.2. We suggest periodically monitoring prolactin levels in transgender females treated with estrogens. (2 |⊕⊕○○)

4.3. We suggest that clinicians evaluate transgender persons treated with hormones for cardiovascular risk factors using fasting lipid profiles, diabetes screening, and/or other diagnostic tools. (2 |⊕⊕○○)

4.4. We recommend that clinicians obtain bone mineral density (BMD) measurements when risk factors for osteoporosis exist, specifically in those who stop sex hormone therapy after gonadectomy. (1 |⊕⊕○○)

4.5. We suggest that transgender females with no known increased risk of breast cancer follow breast-screening guidelines recommended for non-transgender females. (2 |⊕⊕○○)

4.6. We suggest that transgender females treated with estrogens follow individualized screening according to personal risk for prostatic disease and prostate cancer. (2 |⊕○○○)

4.7. We advise that clinicians determine the medical necessity of including a total hysterectomy and oophorectomy as part of gender-affirming surgery. (Ungraded Good Practice Statement)

## **5.0 Surgery for sex reassignment and gender confirmation**

Oxford University Press uses cookies to enhance your experience on our website. By selecting are agreeing to our use of cookies. You can change your cookie settings at any time. More info found in our [Cookie Policy](#).

necessary and would benefit the patient's overall health and/or well-being. (1 | ⊕ ⊕ ○ ○)

5.2. We advise that clinicians approve genital gender-affirming surgery only after completion of at least 1 year of consistent and compliant hormone treatment, unless hormone therapy is not desired or medically contraindicated. (Ungraded Good Practice Statement)

5.3. We advise that the clinician responsible for endocrine treatment and the primary care provider ensure appropriate medical clearance of transgender individuals for genital gender-affirming surgery and collaborate with the surgeon regarding hormone use during and after surgery. (Ungraded Good Practice Statement)

5.4. We recommend that clinicians refer hormone-treated transgender individuals for genital surgery when: (1) the individual has had a satisfactory social role change, (2) the individual is satisfied about the hormonal effects, and (3) the individual desires definitive surgical changes. (1 | ⊕ ○ ○ ○)

5.5. We suggest that clinicians delay gender-affirming genital surgery involving gonadectomy and/or hysterectomy until the patient is at least 18 years old or legal age of majority in his or her country. (2 | ⊕ ⊕ ○ ○).

5.6. We suggest that clinicians determine the timing of breast surgery for transgender males based upon the physical and mental health status of the individual. There is insufficient evidence to recommend a specific age requirement. (2 | ⊕ ○ ○ ○)

## Changes Since the Previous Guideline

---

Both the current guideline and the one published in 2009 contain

Oxford University Press uses cookies to enhance your experience on our website. By selecting are agreeing to our use of cookies. You can change your cookie settings at any time. More info found in our [Cookie Policy](#).



Adverse Outcomes Prevention and Long-term Care (7), and Surgery for Sex Reassignment and Gender Confirmation (6). The current introduction updates the diagnostic classification of “gender dysphoria/gender incongruence.” It also reviews the development of “gender identity” and summarizes its natural development. The section on clinical evaluation of both youth and adults, defines in detail the professional qualifications required of those who diagnose and treat both adolescents and adults. We advise that decisions regarding the social transition of prepubertal youth are made with the assistance of a mental health professional or similarly experienced professional. We recommend against puberty blocking followed by gender-affirming hormone treatment of prepubertal children. Clinicians should inform pubertal children, adolescents, and adults seeking gender-confirming treatment of their options for fertility preservation. Prior to treatment, clinicians should evaluate the presence of medical conditions that may be worsened by hormone depletion and/or treatment. A multidisciplinary team, preferably composed of medical and mental health professionals, should monitor treatments. Clinicians evaluating transgender adults for endocrine treatment should confirm the diagnosis of persistent gender dysphoria/gender incongruence. Physicians should educate transgender persons regarding the time course of steroid-induced physical changes. Treatment should include periodic monitoring of hormone levels and metabolic parameters, as well as assessments of bone density and the impact upon prostate, gonads, and uterus. We also make recommendations for transgender persons who plan genital gender-affirming surgery.

## **Method of Development of Evidence-Based Clinical Practice Guidelines**

---

The Clinical Guidelines Subcommittee (CGS) of the Endocrine Society deemed the diagnosis and treatment of individuals with GD/gender

Oxford University Press uses cookies to enhance your experience on our website. By selecting are agreeing to our use of cookies. You can change your cookie settings at any time. More info found in our [Cookie Policy](#).

group with expertise in the development and implementation of evidence-based guidelines (1). A detailed description of the grading scheme has been published elsewhere (2). The task force used the best available research evidence to develop the recommendations. The task force also used consistent language and graphical descriptions of both the strength of a recommendation and the quality of evidence. In terms of the strength of the recommendation, strong recommendations use the phrase “we recommend” and the number 1, and weak recommendations use the phrase “we suggest” and the number 2. Cross-filled circles indicate the quality of the evidence, such that ⊕○○○ denotes very low-quality evidence; ⊕⊕○○, low quality; ⊕⊕⊕○, moderate quality; and ⊕⊕⊕⊕, high quality. The task force has confidence that persons who receive care according to the strong recommendations will derive, on average, more benefit than harm. Weak recommendations require more careful consideration of the person’s circumstances, values, and preferences to determine the best course of action. Linked to each recommendation is a description of the evidence and the values that the task force considered in making the recommendation. In some instances, there are remarks in which the task force offers technical suggestions for testing conditions, dosing, and monitoring. These technical comments reflect the best available evidence applied to a typical person being treated. Often this evidence comes from the unsystematic observations of the task force and their preferences; therefore, one should consider these remarks as suggestions.

In this guideline, the task force made several statements to emphasize the importance of shared decision-making, general preventive care measures, and basic principles of the treatment of transgender persons. They labeled these “Ungraded Good Practice Statement.” Direct evidence for these statements was either unavailable or not systematically appraised and considered out of the scope of this guideline. The intention of these statements is to draw attention to these principles.



of interest before the Society's Council approves the members to participate on the task force and periodically during the development of the guideline. All others participating in the guideline's development must also disclose any conflicts of interest in the matter under study, and most of these participants must be without any conflicts of interest. The CGS and the task force have reviewed all disclosures for this guideline and resolved or managed all identified conflicts of interest.

Conflicts of interest are defined as remuneration in any amount from commercial interests; grants; research support; consulting fees; salary; ownership interests [e.g., stocks and stock options (excluding diversified mutual funds)]; honoraria and other payments for participation in speakers' bureaus, advisory boards, or boards of directors; and all other financial benefits. Completed forms are available through the Endocrine Society office.

The Endocrine Society provided the funding for this guideline; the task force received no funding or remuneration from commercial or other entities.

## **Commissioned Systematic Review**

---

The task force commissioned two systematic reviews to support this guideline. The first one aimed to summarize the available evidence on the effect of sex steroid use in transgender individuals on lipids and cardiovascular outcomes. The review identified 29 eligible studies at moderate risk of bias. In transgender males (female to male), sex steroid therapy was associated with a statistically significant increase in serum triglycerides and low-density lipoprotein cholesterol levels. High-density lipoprotein cholesterol levels decreased significantly across all follow-up time periods. In transgender females (male to female), serum triglycerides were significantly higher without any changes in other parameters. Few myocardial infarction stroke

Oxford University Press uses cookies to enhance your experience on our website. By selecting are agreeing to our use of cookies. You can change your cookie settings at any time. More info found in our [Cookie Policy](#).

health in transgender individuals and identified 13 studies. In transgender males, there was no statistically significant difference in the lumbar spine, femoral neck, or total hip BMD at 12 and 24 months compared with baseline values before initiating masculinizing hormone therapy. In transgender females, there was a statistically significant increase in lumbar spine BMD at 12 months and 24 months compared with baseline values before initiation of feminizing hormone therapy. There was minimal information on fracture rates. The quality of evidence was also low.

## Introduction

---

Throughout recorded history (in the absence of an endocrine disorder) some men and women have experienced confusion and anguish resulting from rigid, forced conformity to sexual dimorphism. In modern history, there have been numerous ongoing biological, psychological, cultural, political, and sociological debates over various aspects of gender variance. The 20th century marked the emergence of a social awakening for men and women with the belief that they are “trapped” in the wrong body (3). Magnus Hirschfeld and Harry Benjamin, among others, pioneered the medical responses to those who sought relief from and a resolution to their profound discomfort. Although the term transsexual became widely known after Benjamin wrote “The Transsexual Phenomenon” (4), it was Hirschfeld who coined the term “transsexual” in 1923 to describe people who want to live a life that corresponds with their experienced gender vs their designated gender (5). Magnus Hirschfeld (6) and others (4, 7) have described other types of trans phenomena besides transsexualism. These early researchers proposed that the gender identity of these people was located somewhere along a unidimensional continuum. This continuum ranged from all male through “something in between” to all female. Yet such a classification does not take into account that people may have gender



rapid involuntary alternation between a male and female identity (10) or men who do not experience themselves as men but do not want to live as women (11, 12). In some countries, (*e.g.*, Nepal, Bangladesh, and Australia), these nonmale or nonfemale genders are officially recognized (13). Specific treatment protocols, however, have not yet been developed for these groups.

Instead of the term transsexualism, the current classification system of the American Psychiatric Association uses the term gender dysphoria in its diagnosis of persons who are not satisfied with their designated gender (14). The current version of the World Health Organization's ICD-10 still uses the term transsexualism when diagnosing adolescents and adults. However, for the ICD-11, the World Health Organization has proposed using the term "gender incongruence" (15).

Treating persons with GD/gender incongruence (15) was previously limited to relatively ineffective elixirs or creams. However, more effective endocrinology-based treatments became possible with the availability of testosterone in 1935 and diethylstilbestrol in 1938. Reports of individuals with GD/gender incongruence who were treated with hormones and gender-affirming surgery appeared in the press during the second half of the 20th century. The Harry Benjamin International Gender Dysphoria Association was founded in September 1979 and is now called the World Professional Association for Transgender Health (WPATH). WPATH published its first Standards of Care in 1979. These standards have since been regularly updated, providing guidance for treating persons with GD/gender incongruence (16).

Prior to 1975, few peer-reviewed articles were published concerning endocrine treatment of transgender persons. Since then, more than two thousand articles about various aspects of transgender care have appeared.

-----

and minimize risk when caring for individuals diagnosed with GD/gender incongruence.

In the future, we need more rigorous evaluations of the effectiveness and safety of endocrine and surgical protocols. Specifically, endocrine treatment protocols for GD/gender incongruence should include the careful assessment of the following: (1) the effects of prolonged delay of puberty in adolescents on bone health, gonadal function, and the brain (including effects on cognitive, emotional, social, and sexual development); (2) the effects of treatment in adults on sex hormone levels; (3) the requirement for and the effects of progestins and other agents used to suppress endogenous sex steroids during treatment; and (4) the risks and benefits of gender-affirming hormone treatment in older transgender people.

To successfully establish and enact these protocols, a commitment of mental health and endocrine investigators is required to collaborate in long-term, large-scale studies across countries that use the same diagnostic and inclusion criteria, medications, assay methods, and response assessment tools (*e.g.*, the European Network for the Investigation of Gender Incongruence) (17, 18).

Terminology and its use vary and continue to evolve. [Table 1](#) contains the definitions of terms as they are used throughout this guideline.

**Table 1.** Definitions of Terms Used in This Guideline

---

*Biological sex, biological male or female:* These terms refer to physical aspects of maleness and femaleness. As these may not be in line with each other (*e.g.*, a person with XY chromosomes may have female-appearing genitalia), the terms biological sex and biological male or female are imprecise and should be avoided.

---

*Cisgender:* This means not transgender. An alternative way to describe individuals who are not transgender is “non-transgender people.”

---

*Gender-affirming (hormone) treatment:* See “gender reassignment”



---

*Gender dysphoria:* This is the distress and unease experienced if gender identity and designated gender are not completely congruent (see Table 2). In 2013, the American Psychiatric Association released the fifth edition of the DSM-5, which replaced “gender identity disorder” with “gender dysphoria” and changed the criteria for diagnosis.

---

*Gender expression:* This refers to external manifestations of gender, expressed through one’s name, pronouns, clothing, haircut, behavior, voice, or body characteristics. Typically, transgender people seek to make their gender expression align with their gender identity, rather than their designated gender.

---

*Gender identity/experienced gender:* This refers to one’s internal, deeply held sense of gender. For transgender people, their gender identity does not match their sex designated at birth. Most people have a gender identity of man or woman (or boy or girl). For some people, their gender identity does not fit neatly into one of those two choices. Unlike gender expression (see below), gender identity is not visible to others.

---

*Gender identity disorder:* This is the term used for GD/gender incongruence in previous versions of DSM (see “gender dysphoria”). The ICD-10 still uses the term for diagnosing child diagnoses, but the upcoming ICD-11 has proposed using “gender incongruence of childhood.”

---

*Gender incongruence:* This is an umbrella term used when the gender identity and/or gender expression differs from what is typically associated with the designated gender. Gender incongruence is also the proposed name of the gender identity-related diagnoses in ICD-11. Not all individuals with gender incongruence have gender dysphoria or seek treatment.

---

*Gender variance:* See “gender incongruence”

---

*Gender reassignment:* This refers to the treatment procedure for those who want to adapt their bodies to the experienced gender by means of hormones and/or surgery. This is also called gender-confirming or gender-affirming treatment.

---

*Gender-reassignment surgery (gender-confirming/gender-affirming surgery):* These terms refer only to the surgical part of gender-confirming/gender-affirming treatment.

---

*Gender role:* This refers to behaviors, attitudes, and personality traits that a society (in a given culture and historical period) designates as masculine or

---

---

*Sex:* This refers to attributes that characterize biological maleness or femaleness. The best known attributes include the sex-determining genes, the sex chromosomes, the H-Y antigen, the gonads, sex hormones, internal and external genitalia, and secondary sex characteristics.

---

*Sexual orientation:* This term describes an individual's enduring physical and emotional attraction to another person. Gender identity and sexual orientation are not the same. Irrespective of their gender identity, transgender people may be attracted to women (gynephilic), attracted to men (androphilic), bisexual, asexual, or queer.

---

*Transgender:* This is an umbrella term for people whose gender identity and/or gender expression differs from what is typically associated with their sex designated at birth. Not all transgender individuals seek treatment.

---

*Transgender male (also: trans man, female-to-male, transgender male):* This refers to individuals assigned female at birth but who identify and live as men.

---

*Transgender woman (also: trans woman, male-to-female, transgender female):* This refers to individuals assigned male at birth but who identify and live as women.

---

*Transition:* This refers to the process during which transgender persons change their physical, social, and/or legal characteristics consistent with the affirmed gender identity. Prepubertal children may choose to transition socially.

---

*Transsexual:* This is an older term that originated in the medical and psychological communities to refer to individuals who have permanently transitioned through medical interventions or desired to do so.

---

## **Biological Determinants of Gender Identity Development**

---

One's self-awareness as male or female changes gradually during infant life and childhood. This process of cognitive and affective learning evolves with interactions with parents, peers, and environment. A fairly accurate timetable exists outlining the steps in this process (19). Normative psychological literature, however, does



neuroanatomic—support the concept that gender identity and/or gender expression (20) likely reflect a complex interplay of biological, environmental, and cultural factors (21, 22).

With respect to endocrine considerations, studies have failed to find differences in circulating levels of sex steroids between transgender and nontransgender individuals (23). However, studies in individuals with a disorder/difference of sex development (DSD) have informed our understanding of the role that hormones may play in gender identity outcome, even though most persons with GD/gender incongruence do not have a DSD. For example, although most 46,XX adult individuals with virilizing congenital adrenal hyperplasia caused by mutations in *CYP21A2* reported a female gender identity, the prevalence of GD/gender incongruence was much greater in this group than in the general population without a DSD. This supports the concept that there is a role for prenatal/postnatal androgens in gender development (24–26), although some studies indicate that prenatal androgens are more likely to affect gender behavior and sexual orientation rather than gender identity *per se* (27, 28).

Researchers have made similar observations regarding the potential role of androgens in the development of gender identity in other individuals with DSD. For example, a review of two groups of 46,XY persons, each with androgen synthesis deficiencies and female raised, reported transgender male (female-to-male) gender role changes in 56% to 63% and 39% to 64% of patients, respectively (29). Also, in 46,XY female-raised individuals with cloacal exstrophy and penile agenesis, the occurrence of transgender male changes was significantly more prevalent than in the general population (30, 31). However, the fact that a high percentage of individuals with the same conditions did not change gender suggests that cultural factors may play a role as well.

With respect to genetics and gender identity, several studies have suggested heritability of GD/gender incongruence (32, 33). In

numerous investigators have sought to identify specific genes associated with GD/gender incongruence, such studies have been inconsistent and without strong statistical significance (34–38).

Studies focusing on brain structure suggest that the brain phenotypes of people with GD/gender incongruence differ in various ways from control males and females, but that there is not a complete sex reversal in brain structures (39).

In summary, although there is much that is still unknown with respect to gender identity and its expression, compelling studies support the concept that biologic factors, in addition to environmental factors, contribute to this fundamental aspect of human development.

## **Natural History of Children With GD/Gender Incongruence**

---

With current knowledge, we cannot predict the psychosexual outcome for any specific child. Prospective follow-up studies show that childhood GD/gender incongruence does not invariably persist into adolescence and adulthood (so-called “desisters”). Combining all outcome studies to date, the GD/gender incongruence of a minority of prepubertal children appears to persist in adolescence (20, 40). In adolescence, a significant number of these desisters identify as homosexual or bisexual. It may be that children who only showed some gender nonconforming characteristics have been included in the follow-up studies, because the DSM-IV text revision criteria for a diagnosis were rather broad. However, the persistence of GD/gender incongruence into adolescence is more likely if it had been extreme in childhood (41, 42). With the newer, stricter criteria of the DSM-5 (Table 2), persistence rates may well be different in future studies.



**Table 2.** DSM-5 Criteria for Gender Dysphoria in Adolescents and Adults

---

A. A marked incongruence between one’s experienced/expressed gender and natal gender of at least 6 mo in duration, as manifested by at least two of the following:

---

1. A marked incongruence between one’s experienced/expressed gender and primary and/or secondary sex characteristics (or in young adolescents, the anticipated secondary sex characteristics)

---

2. A strong desire to be rid of one’s primary and/or secondary sex characteristics because of a marked incongruence with one’s experienced/expressed gender (or in young adolescents, a desire to prevent the development of the anticipated secondary sex characteristics)

---

3. A strong desire for the primary and/or secondary sex characteristics of the other gender

---

4. A strong desire to be of the other gender (or some alternative gender different from one’s designated gender)

---

5. A strong desire to be treated as the other gender (or some alternative gender different from one’s designated gender)

---

6. A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one’s designated gender)

---

B. The condition is associated with clinically significant distress or impairment in social, occupational, or other important areas of functioning.

---

Specify if:

---

1. The condition exists with a disorder of sex development.

---

2. The condition is posttransitional, in that the individual has transitioned to full-time living in the desired gender (with or without legalization of gender change) and has undergone (or is preparing to have) at least one sex-related medical procedure or treatment regimen—namely, regular sex hormone treatment or gender reassignment surgery confirming the desired gender (*e.g.*, penectomy, vaginoplasty in natal males; mastectomy or phalloplasty in natal females).

---

Reference: American Psychiatric Association (14)

Oxford University Press uses cookies to enhance your experience on our website. By selecting are agreeing to our use of cookies. You can change your cookie settings at any time. More info found in our [Cookie Policy](#).

## 1.0 Evaluation of Youth and Adults

---

Gender-affirming treatment is a multidisciplinary effort. After evaluation, education, and diagnosis, treatment may include mental health care, hormone therapy, and/or surgical therapy. Together with an MHP, hormone-prescribing clinicians should examine the psychosocial impact of the potential changes on people's lives, including mental health, friends, family, jobs, and their role in society. Transgender individuals should be encouraged to experience living in the new gender role and assess whether this improves their quality of life. Although the focus of this guideline is gender-affirming hormone therapy, collaboration with appropriate professionals responsible for each aspect of treatment maximizes a successful outcome.

### Diagnostic assessment and mental health care

GD/gender incongruence may be accompanied with psychological or psychiatric problems (43–51). It is therefore necessary that clinicians who prescribe hormones and are involved in diagnosis and psychosocial assessment meet the following criteria: (1) are competent in using the DSM and/or the ICD for diagnostic purposes, (2) are able to diagnose GD/gender incongruence and make a distinction between GD/gender incongruence and conditions that have similar features (*e.g.*, body dysmorphic disorder), (3) are trained in diagnosing psychiatric conditions, (4) undertake or refer for appropriate treatment, (5) are able to do a psychosocial assessment of the patient's understanding, mental health, and social conditions that can impact gender-affirming hormone therapy, and (6) regularly attend relevant professional meetings.

Because of the psychological vulnerability of many individuals with GD/gender incongruence, it is important that mental health care is available before, during, and sometimes also after transitioning. For



assessing GD/gender incongruence in children and adolescents is often extremely complex.

During assessment, the clinician obtains information from the individual seeking gender-affirming treatment. In the case of adolescents, the clinician also obtains information from the parents or guardians regarding various aspects of the child's general and psychosexual development and current functioning. On the basis of this information, the clinician:

- decides whether the individual fulfills criteria for treatment (see [Tables 2](#) and [3](#)) for GD/gender incongruence (DSM-5) or transsexualism (DSM-5 and/or ICD-10);

**Table 3.** ICD-10 Criteria for Transsexualism

---

**Transsexualism (F64.0) has three criteria:**

---

1. The desire to live and be accepted as a member of the opposite sex, usually accompanied by the wish to make his or her body as congruent as possible with the preferred sex through surgery and hormone treatments.
  2. The transsexual identity has been present persistently for at least 2 y.
  3. The disorder is not a symptom of another mental disorder or a genetic, DSD, or chromosomal abnormality.
- 

- informs the individual about the possibilities and limitations of various kinds of treatment (hormonal/surgical and nonhormonal), and if medical treatment is desired, provides correct information to prevent unrealistically high expectations;
- assesses whether medical interventions may result in unfavorable psychological and social outcomes.

In cases in which severe psychopathology, circumstances, or both seriously interfere with the diagnostic work or make satisfactory

comorbidity and lack of support may interfere with positive outcomes (52–56).

For adolescents, the diagnostic procedure usually includes a complete psychodiagnostic assessment (57) and an assessment of the decision-making capability of the youth. An evaluation to assess the family's ability to endure stress, give support, and deal with the complexities of the adolescent's situation should be part of the diagnostic phase (58).

## **Social transitioning**

A change in gender expression and role (which may involve living part time or full time in another gender role that is consistent with one's gender identity) may test the person's resolve, the capacity to function in the affirmed gender, and the adequacy of social, economic, and psychological supports. It assists both the individual and the clinician in their judgments about how to proceed (16). During social transitioning, the person's feelings about the social transformation (including coping with the responses of others) is a major focus of the counseling. The optimal timing for social transitioning may differ between individuals. Sometimes people wait until they start gender-affirming hormone treatment to make social transitioning easier, but individuals increasingly start social transitioning long before they receive medically supervised, gender-affirming hormone treatment.

## **Criteria**

Adolescents and adults seeking gender-affirming hormone treatment and surgery should satisfy certain criteria before proceeding (16). Criteria for gender-affirming hormone therapy for adults are in [Table 4](#), and criteria for gender-affirming hormone therapy for adolescents are in [Table 5](#). Follow-up studies in adults meeting these criteria indicate a high satisfaction rate with treatment (59). However, the



**Table 4.** Criteria for Gender-Affirming Hormone Therapy for Adults

- 
1. Persistent, well-documented gender dysphoria/gender incongruence

---

  2. The capacity to make a fully informed decision and to consent for treatment

---

  3. The age of majority in a given country (if younger, follow the criteria for adolescents)

---

  4. Mental health concerns, if present, must be reasonably well controlled

---

Reproduced from World Professional Association for Transgender Health (16).

**Table 5.** Criteria for Gender-Affirming Hormone Therapy for Adolescents

---

**Adolescents are eligible for GnRH agonist treatment if:**

---

1. A qualified MHP has confirmed that:
- 

- the adolescent has demonstrated a long-lasting and intense pattern of gender nonconformity or gender dysphoria (whether suppressed or expressed),

---

- gender dysphoria worsened with the onset of puberty,

---

- any coexisting psychological, medical, or social problems that could interfere with treatment (*e.g.*, that may compromise treatment adherence) have been addressed, such that the adolescent's situation and functioning are stable enough to start treatment,

---

- the adolescent has sufficient mental capacity to give informed consent to this (reversible) treatment,

---

2. And the adolescent:
- 

- has been informed of the effects and side effects of treatment (including potential loss of fertility if the individual subsequently continues with sex hormone treatment) and options to preserve fertility,

---

- has given informed consent and (particularly when the adolescent has not reached the age of legal medical consent, depending on applicable legislation) the parents or other caretakers or guardians have consented to the treatment

---

---

- agrees with the indication for GnRH agonist treatment,

---

- has confirmed that puberty has started in the adolescent (Tanner stage  $\geq$ G2/B2),

---

- has confirmed that there are no medical contraindications to GnRH agonist treatment.

---

**Adolescents are eligible for subsequent sex hormone treatment if:**

---

1. A qualified MHP has confirmed:

---

- the persistence of gender dysphoria,

---

- any coexisting psychological, medical, or social problems that could interfere with treatment (*e.g.*, that may compromise treatment adherence) have been addressed, such that the adolescent's situation and functioning are stable enough to start sex hormone treatment,

---

- the adolescent has sufficient mental capacity (which most adolescents have by age 16 years) to estimate the consequences of this (partly) irreversible treatment, weigh the benefits and risks, and give informed consent to this (partly) irreversible treatment,

---

2. And the adolescent:

---

- has been informed of the (irreversible) effects and side effects of treatment (including potential loss of fertility and options to preserve fertility),

---

- has given informed consent and (particularly when the adolescent has not reached the age of legal medical consent, depending on applicable legislation) the parents or other caretakers or guardians have consented to the treatment and are involved in supporting the adolescent throughout the treatment process,

---

3. And a pediatric endocrinologist or other clinician experienced in pubertal induction:

---

- agrees with the indication for sex hormone treatment,

---

- has confirmed that there are no medical contraindications to sex hormone treatment.

---



## **Recommendations for Those Involved in the Gender-Affirming Hormone Treatment of Individuals With GD/Gender Incongruence**

---

1.1. We advise that only trained MHPs who meet the following criteria should diagnose GD/gender incongruence in adults: (1) competence in using the DSM and/or the ICD for diagnostic purposes, (2) the ability to diagnose GD/gender incongruence and make a distinction between GD/gender incongruence and conditions that have similar features (*e.g.*, body dysmorphic disorder), (3) training in diagnosing psychiatric conditions, (4) the ability to undertake or refer for appropriate treatment, (5) the ability to psychosocially assess the person's understanding, mental health, and social conditions that can impact gender-affirming hormone therapy, and (6) a practice of regularly attending relevant professional meetings. (Ungraded Good Practice Statement)

1.2. We advise that only MHPs who meet the following criteria should diagnose GD/gender incongruence in children and adolescents: (1) training in child and adolescent developmental psychology and psychopathology, (2) competence in using the DSM and/or ICD for diagnostic purposes, (3) the ability to make a distinction between GD/gender incongruence and conditions that have similar features (*e.g.*, body dysmorphic disorder), (4) training in diagnosing psychiatric conditions, (5) the ability to undertake or refer for appropriate treatment, (6) the ability to psychosocially assess the person's understanding and social conditions that can impact gender-affirming hormone therapy, (7) a practice of regularly attending relevant professional meetings, and (8) knowledge of the criteria for puberty blocking and gender-affirming hormone treatment in adolescents. (Ungraded Good Practice Statement)

## Evidence

Individuals with gender identity issues may have psychological or psychiatric problems (43–48, 50, 51, 64, 65). It is therefore necessary that clinicians making the diagnosis are able to make a distinction between GD/gender incongruence and conditions that have similar features. Examples of conditions with similar features are body dysmorphic disorder, body identity integrity disorder (a condition in which individuals have a sense that their anatomical configuration as an able-bodied person is somehow wrong or inappropriate) (66), or certain forms of eunuchism (in which a person is preoccupied with or engages in castration and/or penectomy for reasons that are not gender identity related) (11). Clinicians should also be able to diagnose psychiatric conditions accurately and ensure that these conditions are treated appropriately, particularly when the conditions may complicate treatment, affect the outcome of gender-affirming treatment, or be affected by hormone use.

## Values and preferences

The task force placed a very high value on avoiding harm from hormone treatment in individuals who have conditions other than GD/gender incongruence and who may not benefit from the physical changes associated with this treatment and placed a low value on any potential benefit these persons believe they may derive from hormone treatment. This justifies the good practice statement.

1.3. We advise that decisions regarding the social transition of prepubertal youths with GD/gender incongruence are made with the assistance of an MHP or another experienced professional. (Ungraded Good Practice Statement).

1.4. We recommend against puberty blocking and gender-affirming hormone treatment in prepubertal children with GD/gender incongruence. (1 | ⊕ ⊕ ○ ○)



## **Evidence**

In most children diagnosed with GD/gender incongruence, it did not persist into adolescence. The percentages differed among studies, probably dependent on which version of the DSM clinicians used, the patient's age, the recruitment criteria, and perhaps cultural factors. However, the large majority (about 85%) of prepubertal children with a childhood diagnosis did not remain GD/gender incongruent in adolescence (20). If children have completely socially transitioned, they may have great difficulty in returning to the original gender role upon entering puberty (40). Social transition is associated with the persistence of GD/gender incongruence as a child progresses into adolescence. It may be that the presence of GD/gender incongruence in prepubertal children is the earliest sign that a child is destined to be transgender as an adolescent/adult (20). However, social transition (in addition to GD/gender incongruence) has been found to contribute to the likelihood of persistence.

This recommendation, however, does not imply that children should be discouraged from showing gender-variant behaviors or should be punished for exhibiting such behaviors. In individual cases, an early complete social transition may result in a more favorable outcome, but there are currently no criteria to identify the GD/gender-incongruent children to whom this applies. At the present time, clinical experience suggests that persistence of GD/gender incongruence can only be reliably assessed after the first signs of puberty.

## **Values and preferences**

The task force placed a high value on avoiding harm with gender-affirming hormone therapy in prepubertal children with GD/gender incongruence. This justifies the strong recommendation in the face of low-quality evidence.

hormonal therapy of the affirmed gender in both adolescents and adults. (1 | ⊕ ⊕ ⊕ ⊕)

## Remarks

Persons considering hormone use for gender affirmation need adequate information about this treatment in general and about fertility effects of hormone treatment in particular to make an informed and balanced decision (67, 68). Because young adolescents may not feel qualified to make decisions about fertility and may not fully understand the potential effects of hormonal interventions, consent and protocol education should include parents, the referring MHP(s), and other members of the adolescent's support group. To our knowledge, there are no formally evaluated decision aids available to assist in the discussion and decision regarding the future fertility of adolescents or adults beginning gender-affirming treatment.

Treating early pubertal youth with GnRH analogs will temporarily impair spermatogenesis and oocyte maturation. Given that an increasing number of transgender youth want to preserve fertility potential, delaying or temporarily discontinuing GnRH analogs to promote gamete maturation is an option. This option is often not preferred, because mature sperm production is associated with later stages of puberty and with the significant development of secondary sex characteristics.

For those designated male at birth with GD/gender incongruence and who are in early puberty, sperm production and the development of the reproductive tract are insufficient for the cryopreservation of sperm. However, prolonged pubertal suppression using GnRH analogs is reversible and clinicians should inform these individuals that sperm production can be initiated following prolonged gonadotropin suppression. This can be accomplished by spontaneous gonadotropin recovery after cessation of GnRH analogs or by