Breast and Body Contouring for Transgender and Gender Nonconforming Individuals

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KEYWORDS

• Transgender • Breast augmentation • Body contouring • Gender affirmation

KEY POINTS

- On average, men and women have distinct anthropomorphic differences in skeletal structure and soft tissue deposition.
- Hormone replacement therapy is partially effective in altering the soft tissue profile in transmen and transwomen. Surgical intervention is often indicated if hormonal replacement therapy does not achieve the appropriate changes in soft tissue characteristics.
- Breast augmentation and body contouring are among the most commonly performed gender affirmation surgeries for transwomen. Both types of procedures offer various challenges and carry limitations.
- The surgeon and patient should be aware of these challenges and limitations to offer a thorough informed consent, assist in operative decision making, and manage postoperative expectations.
- With proper understanding, adherence to core principals, and goal-directed strategies, transwomen can be afforded significant improvements in physical form and subsequently improvements in their gender dysphoria.

INTRODUCTION

Individuals with varying gender identities are becoming more widely accepted throughout the world.[1–7] With continued progressive societal changes and improvements in insurance coverage, a greater proportion of this population will seek appropriate care. Providers will therefore need to ensure they are adequately trained to care for this often-marginalized population.[8–12]

The goal of gender affirmation surgery (also referred to as gender confirmation surgery) is to ameliorate the discrepancy between an individual's self-perceived gender identity and assigned sex.[13] Ideally, this transition will help an individual live seamlessly in society without the fear of

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stigmatization or physical harm. To that end, there are many different aspects of gender affirmation for both transmen and transwomen, including mental health evaluation, hormonal therapy, and surgery.

The surgical options for transgender women include, but are not limited to, breast augmentation, body contouring procedures, vaginoplasty, facial feminization, thyroid cartilage reduction, and vocal cord surgery.[1,14–17] Given the baseline differences in male and female form, each of the aforementioned procedures offers technical challenges and carries varying degrees of limitation.

The purpose of this article is to discuss breast augmentation and body contouring procedures as they pertain to gender affirmation surgery in transwomen. The surgeon and the patient should be aware of the challenges and limitations of these procedures in order to obtain a proper preoperative informed consent, assist in intraoperative decision making, and to manage postoperative expectations. The overarching goal of this paper is assist surgical providers to be adequately prepared for the challenges faced with feminizing a masculine body.

DIFFERENCE IN MALE AND FEMALE FORMS

The bony architecture of the pelvis is distinctly different between the male and female forms (**Fig. 1**A, B). Cis-men have acute suprapubic angles, narrow pelvic brims, and accentuated iliac crests. Cis-women, on the contrary, have obtuse suprapubic angles, wide pelvic brims, and flattened iliac crests.[18,19] Meaningful alterations in the bony framework are unlikely with hormone therapy and surgical modification of the pelvis comes with significant risks that outweigh the benefits based on current surgical techniques. Therefore, to obtain a more feminine form, transwomen generally seek body contouring of the overlying soft tissues.

Although fat distribution is a multifactorial process, it tends to follow general trends in both sex and age. Body shape and fat distribution patterns are strikingly similar for both men and women during infancy and preadolescence. Initial changes are noted after puberty when cis-men take on an android body habitus, which is typically characterized by increased subcutaneous fat deposition along the abdomen and flanks as well as intra-abdominally.[20] In contrast, adolescent cis-females begin to develop a gynoid body habitus with a greater proportion of fat deposited in the gluteal region and the hips.[20] For a given body mass index (BMI), cis-women tend to have 10% higher body fat compared with cis-men, with a higher proportion as subcutaneous adipose tissue compared to visceral adipose tissue.[21,22] The differences in fat deposition lead to varying degrees of waist-to-hip ratio (WHR) in men and women; adult cis-women tend to remain in the ratio of 0.65 to 0.80, while adult cis-men are generally within the range of 0.85 to 0.95.[23] As cis-women progress through adult life and into menopause, the WHR tends to move more toward their cis-male counterparts.[24]

Multiple studies have tried to determine the ideal WHR for cis-women, and although an absolute number is not agreed upon, most tend to suggest that 0.7 is an approximate ideal.[20,25–29]

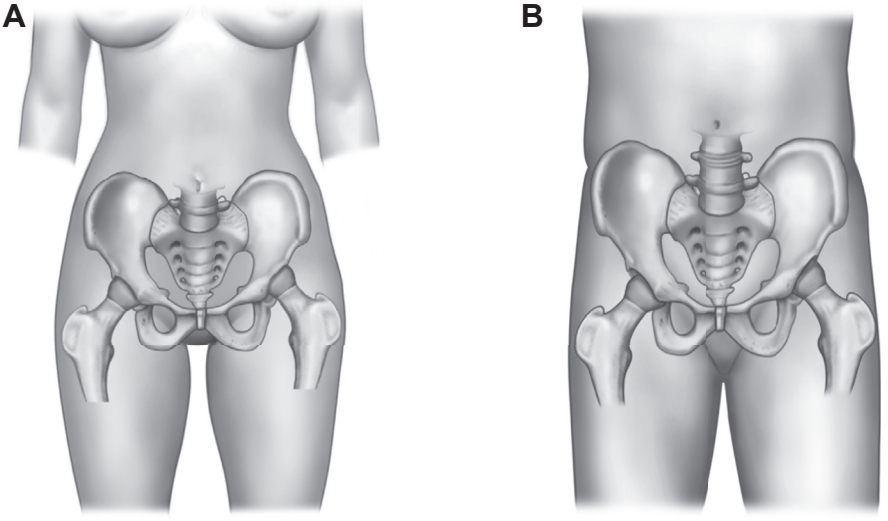

Fig. 1. Differences in male and female trunk, hips, and thighs (anterior view) with pelvic bone structure. (*A*) Male trunk. (*B*) Female trunk.