Literature Review

Re: Medical necessity of chest reassignment surgery to treat gender dysphoria in transgender women

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Overview

This document compiles the medical evidence that chest reassignment surgery is clinically appropriate treatment for transgender women with gender dysphoria caused by their chest (chest dysphoria). Part I addresses in detail that chest reassignment surgery is a procedure designed to change sex characteristics for the purpose of treating gender dysphoria. Part II summarizes the medical evidence indicating that surgery is the standard of care and is safe and effective in treating gender dysphoria. Part III builds on Part I and highlights how the procedure is undertaken to treat an illness, not improve appearance.

I. Chest reassignment surgery is medically appropriate for and consistent with the symptoms and proper diagnosis of the patient’s disease, gender dysphoria.

Chest reassignment surgery is a procedure that changes male secondary sex characteristics into female ones for the purpose of treating gender dysphoria. Chest reassignment has been shown to be highly effective in treating gender dysphoria.

A. Gender dysphoria is a “disease” under the plan.

Gender dysphoria “is a clinical term used to describe the symptoms of excessive pain, anguish, agitation, restlessness, and malaise” that transgender people often experience. It “describes the psychological discomfort experienced with the physiological body . . . as well as a presence of clinical [symptoms] associated with emotional difficulties.” Gender dysphoria is “[o]ften experienced as depression, anxiety, irritation, and/or agitation, [it] describes the sense that something is very wrong . . . .” Before treatment, individuals with gender dysphoria “live in a dissociated state of mind and body.”

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1 Arlene Istar Lev, Transgender Emergence: Therapeutic Guidelines for Working with Gender-Variant People and Their Families 10 (2004).


Similarly, the International Classification of Diseases, Tenth Revision (ICD-10) recognizes the condition (F64.0) as a “desire to live and be accepted as a member of the opposite sex, usually accompanied by a sense of discomfort with, or inappropriateness of, one’s anatomic sex, and a wish to have surgery and hormonal treatment to make one’s body as congruent as possible with one’s preferred sex.”⁴ In the forthcoming ICD-11, the World Health Organization has renamed the condition “gender incongruence,” and the condition has been moved from a mental health diagnosis to a physical one.⁵

B. Insurance covers surgical and hormonal treatments to change sex characteristics for the purpose of treating gender dysphoria.

Men and women are sexually dimorphic, that is, they have distinct, sex-linked physical characteristics. Not only do men and women have readily apparent sex differences in genitals, reproductive organs and hormone levels, but men and women also have prominent differences in secondary sex characteristics. These differences can be seen in breasts, facial hair, fat distribution, muscle mass, height, body odor, skin texture, body hair, baldness, voice, Adam’s apple, and facial shape.

Changing physical sex characteristics from one sex to another is the standard treatment for gender dysphoria. Specifically, treatment of gender dysphoria “from the male to trans-feminine phenotype relies on an adequate acquisition of female secondary sex characteristics,” specifically including breasts.⁶ The goal is to “ameliorate the discrepancy


⁵ World Health Organization, ICD-11: Classifying disease to map the way we live and die (2018), http://www.who.int/health-topics/international-classification-of-diseases (“Gender incongruence, meanwhile, has also been moved out of mental disorders in the ICD, into sexual health conditions. The rationale being that while evidence is now clear that it is not a mental disorder, and indeed classifying it in this can cause enormous stigma for people who are transgender, there remain significant health care needs that can best be met if the condition is coded under the ICD.”).

⁶ Allison C. Nauta, Differences in Chest Measurements between the Cis-female and Trans-
between an individual’s self-perceived gender identity and assigned sex.”7 Procedures aim to “remove the secondary sexual characteristics and stigma[.] associated with the biological male appearance,” and they are commonly “performed before genital surgery so as to improve an individual’s sense of well-being.”8

According to the World Professional Association for Transgender Health (WPATH), the recognized effective treatment of gender dysphoria is a triadic approach of providing mental health treatment, hormone therapy, and surgeries. WPATH publishes the Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People,9 which the AMA and others recognize as the “internationally accepted Standards of Care . . . recognized within the medical community to be the standard of care for treating people with” gender dysphoria.10 The WPATH Standards of Care recognize that for those who do not experience relief due to other measures, “surgery is essential and medically necessary to alleviate their gender dysphoria . . . relief from gender dysphoria cannot

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7 Shane Morrison, Stelios Wilson & Scott Mosser, Breast and Body Contouring for Transgender and Gender Nonconforming Individuals; 45 CLINICS IN PLASTIC SURGERY 333, 338 (2018).

8 Loren S. Schechter, Gender Confirmation Surgery: an Update for the Primary Care Provider, 1 TRANSGENDER HEALTH, 32, 36 (2016).


10 American Medical Association (AMA) House of Delegates’ Resolution 122, Removing Financial Barriers to Care for Transgender Patients at 1, ¶¶ 16-20 (April 18, 2008); See Madeline B. Deutsch & Jamie L. Feldman, Updated Recommendations from the World Professional Association for Transgender Health Standards of Care, 87 AM. FAM. PHYSICIAN 89 (2013). Further, the United States government has in its regulatory guidance repeatedly recognized WPATH to be a leader in setting standards for transgender healthcare. See 81 Fed. Reg. 31,435 n.263 (HHS Section 557 regulation) & 81 Fed. Reg. 39,136 n. 166 (Department of Labor regulation).
be achieved without modification of their primary and/or secondary sex characteristics to establish greater congruence.”

The value of this treatment protocol is reflected in the fact that insurers cover surgery, hormones, and puberty delaying treatments for the purpose of changing (or preventing the change of) sex characteristics to treat gender dysphoria. This underscores the medical necessity of—as opposed to a cosmetic nature of—treatments that change sex characteristics.

Insurers correctly designate genital surgeries as medically necessary, recognizing that it is not a cosmetic surgery performed to “improve the appearance” of a person’s genitals, but to change a penis into a vagina or vice versa. That is, it changes the sex of a person’s genitals, making the primary purpose of the surgery functional, not cosmetic. Likewise, chest surgery is not designed to “improve the appearance” of a person’s chest, but rather to change a male chest into a female one. That is, it changes the sex of a chest so that it functions as a chest that is consistent with the person’s affirmed sex. Just as mastectomy is a core procedure for transgender men, chest reassignment is a core form of sex reassignment surgery for transgender women. Indeed “[b]reast augmentation

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11 WPATH Standards of Care, supra note 9, at 54-55.


represents an essential component in gender affirming surgery,”16 which
is reflected in the fact that it has been clinical practice for 50 years to
provide surgery where breasts have not developed sufficiently to alleviate
gender dysphoria.17

C. Chest reassignment surgery is performed to change the
sex of a chest.

1. Breasts or the absence of breasts are an important sex-
specific characteristic used to identify an individual’s
sex.

There are marked differences between the male and female chest.18 The
“cis-female chest undergoes changes as a result of puberty, including
breast tissue growth and other morphometric changes that do not
resemble the cis-male chest.”19 Male and female chests “have distinct
features that are commonly recognized: male chests are wider, have
minimal breast tissue with little to no expansion of the skin envelope,
smaller areolas, lateralized nipple-areola complex with less projection, a
wider sternum, and greater pectoral muscle bulk.”20 The female thorax is
shorter and more conical and outwardly displays the development of
breasts.21 Mammary fat accounts for “the outer smoothness of the entire


16 Richard M. Fakin et al., Long-Term Outcomes in Breast Augmentation in Trans-Women
– A 20-Year Experience, AESTHETIC SURGERY J. sjy143,
https://doi.org/10.1093/asj/sjy143 (Jun 12, 2018).

17 Donald R. Laub & Bruce Ascough, Transsexual Surgery, 113 CALIFORNIA
MEDICINE 68 (1970) (“The operation should be combined with augmentation
mammoplasty to produce breasts if they have not developed as a result of hormone
treatment.”).

18 Karel E.Y. Claes et al., Chest Surgery for Transgender and Gender Nonconforming

19 Nauta, supra note 6, at 4.

20 Nauta, supra note 6, at 4; Travis J. Miller et al, Breast Augmentation in Male-to-Female
Transgender Patients: Technical Considerations and Outcomes, 21 JPRAS OPEN 63, 64
(2019); Schechter, supra note 8, at 22.

21 Robert C.J. Kanhai, et al., Augmentation Mammaplasty in Male-to-Female Transsexuals,
female chest, whereas additional axillary fat disguises the form of the muscles of the pectoralis, sides and upper back and arms, which can be rather masculine in appearance in transgender women.

Breasts are an important physical sex characteristic that people rely upon in social interactions to determine the sex of another person; they are “the main external indicator of gender.” A feminized chest is one way for transwomen to present their desired gender in public and private life; it is not surprising that breast augmentation is generally the first, and sometimes only, surgical procedure that transwomen pursue. The “gendering” of other people has important social functions, not just in reproduction, but in social interactions in general. As one surgeon notes, “it is greatly distressing to be identified by others as a member of the opposite sex” in conflict to your own deeply held sense of self. Outside of being misgendered, there is also internal distress associated with experiencing one’s own body as being drastically incongruent.

For many trans women, the “incongruence between their internal and external manifestations of gender” can lead to a negative social impact from both work and personal environments. To minimize the impact of

22 Id. at 542-43.

23 Fakin, supra note 16 (“The greater amount of mammary and axillary fat observed in cis-women creates a smoother surface contour and obscures the rather masculine appearance of the underlying pectoralis, serratus and latissimus muscles.”).

24 Laura Bond Maycock & Holly Powell Kennedy, Breast Care in the Transgender Individual, 59 J. OF MIDWIFERY & WOMEN’S HEALTH 74, 75 (2014) (“Breasts ... are viewed as an external indicator of gender.”).


26 Miller et al., supra note 20, at 64.


29 Tiffany A. Ainsworth & Jeffrey H. Spiegel, Quality of life of individuals with and without facial feminization surgery or gender reassignment surgery, 19 QUAL. LIFE RESEARCH 1019, 1022 (2010) (“This can include loss of job, home, and social support groups. It is
gender dysphoria on their lives, the ability to be visibly seen and recognized as women is of the utmost importance.\textsuperscript{30} The bias that trans women face takes an incredibly high toll on their health through direct harm, lack of appropriate care, and a hostile environment that can lead to their avoidance of the medical system for any health-related care. External markers of gender influence trans women’s experiences surviving in daily life, which is often more important than genital appearance, since that is typically only known by one’s closest intimates.\textsuperscript{31} Having adequate female secondary sex characteristics becomes a key component of a successful transition, which can lead to better psychological functioning for a majority of trans women.\textsuperscript{32}

Low satisfaction with breast outcome resulting from hormones is related to the fact that puberty causes a natal male to develop a larger chest wall which can cause the later growth of breasts to appear smaller than objectively same-size breasts in the typical female population.\textsuperscript{33} For these individuals, what truly mattered was the entire appearance of the chest and not just the breasts as an isolated measurement.\textsuperscript{34} Because male frames are more bony and differ greatly from the female, the resulting appearance of the thorax is often more unsatisfactory to patients due to the difference in appearance from that of similarly developed natal females.\textsuperscript{35} This is consistent with studies on puberty induction in natal girls that experienced rapid estrogen exposure that lead to premature

\textsuperscript{30} Id.

\textsuperscript{31} Dean Spade, Medicaid Policy & Gender-confirming healthcare for trans people: an interview with advocates, 8 Seattle Journal for Social Justice 497, 498 (2010).


\textsuperscript{33} Id. at 4426.

\textsuperscript{34} Id.

\textsuperscript{35} Id. at 4423.
breast bud fusion and poor breast development. A trans woman tends to have other male sex characteristics including “a proportionately larger and less conical torso,” smaller and rather laterally placed nipple-areolar complexes, android chest and shoulders, and insufficient breast tissue as compared to pectoral muscles that have been hypertrophied due to testosterone exposure. Indeed, “[t]here are few changes that occur, even after years of estrogen therapy, which create a feminine appearance in the biologic male body.” All of these factors necessitate surgery in order to create a female chest.

2. **Hormone therapy is more often than not insufficient to cause the development of a female chest, necessitating surgery.**

That transgender woman may have some breast growth from hormones does not mean surgery is not medically necessary. The standard of review of for medical necessity of chest reassignment surgery is as follows: (a) does the patient have gender dysphoria and (b) will surgery help to alleviate her gender dysphoria. The standard is linked to the patient’s gender dysphoria, not an outsider’s assessment as to the alleged adequacy of the size and shape of her breasts. Similarly, the success of the surgery is not related to the ultimate size of the breasts but rather how well the new chest alleviates gender dysphoria.

Chest reassignment is performed in cases where hormonal treatment has not resulted in the sufficient growth of breasts to alleviate gender dysphoria. The effect of hormone therapy is “highly variable” on

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36 Id. at 4425.

37 Fakin, supra note 16.

38 Morrison et al. supra note 7, at 338.


breast growth and “some patients will hardly develop some breast buds even after years of estrogen therapy while others have full breast development after 1–2 years.”

For that reason, a categorical exclusion of breast surgery is clinically inappropriate, and individualized consideration must be given as to whether surgery will resolve an individual’s chest dysphoria.

Estrogen therapy can produce some breast development, but it is not as pronounced as in non-transgender (cisgender) women, typically resulting in a gynecomastia-type Tanner stage II-III appearance. For most trans women—particularly those who start hormone therapy when older—the breast growth is insufficient to resolve chest dysphoria. Accordingly, 67% to 75% of trans women require chest reassignment surgery because “hormonal treatment only results in softly pointed breasts as seen in young girls or the small conical form seen in young adolescents (Tanner stage II or III).” In one study of 229 transgender women, most breast

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42 Marshall Dahl et al., Physical Aspects of Transgender Endocrine Therapy 9 Int’l J. of Transgenderism 111, 113 (2013); S. Reutrakul et al., The Effects of Oestrogen Exposure on Bone Mass in Male to Female Transsexuals, 49 Clinical Endocrinology, 49, 811, 812 (1998) (finding Tanner stage II-III in trans women who had been on hormone therapy 13-58 months); Manuel Sosa et al., Serum Lipids and Estrogen Receptor Gene Polymorphisms in Male-to-Female Transsexuals: Effects of Estrogen Treatment, 15. European J. of Internal Med. 231, 234 (2004) (finding Tanner stage II-III in trans women who had been on hormone therapy for a minimum of 3 years); Fakin, supra note 16 (“Feminizing hormone therapy can provide breast growth that is comparable to breast size seen in the young teenage population.”); Melody Scheefer Van Boerum et al., Chest and Facial Surgery for the Transgender Patient, 8 Translational Andrology and Urology, 219, 222 (2019) (“Full Tanner stage V development is rarely reached and many transwomen will seek breast augmentation.”).

43 Louis Gooren & Henk Asscheman, Sex Reassignment: Endocrinological Interventions in Adults with Gender Dysphoria in Gender Dysphoria and Disorders of Sex Development: Progress in Care and Knowledge, Focus on Sexuality Research 277, 281 (B.P.C. Kreukels et al. eds., 2014).

44 Claes, supra note 18, at 370; Kanhai, supra note 21, at 544 (noting 2/3 of the patients required surgery even after 18 months of hormone treatment); Ralf Dittrich et al.,
growth was found to occur in the first 6 months.\textsuperscript{45} After one year of hormone therapy, almost half “(48.7%) had a bra cup size of less than an AAA cup.”\textsuperscript{46} “Furthermore, 52 transwomen (26.4%) had an AAA cup, 28 (14.2%) an AA cup, 14 (7.1%) an A cup, and only 7 transwomen (3.6%) gained a bra cup size larger than an A cup.”\textsuperscript{47}

It is clinically inappropriate to say that a transgender woman does not require surgery simply because the size of her breasts might be in the typical range for a cisgender woman. The size of a transgender woman’s breasts cannot directly be measured against what would be considered adequate for other women. “Because of these structural differences in the chest, breast growth on hormonal therapy may not be sufficient to establish a satisfactory feminine physique.”\textsuperscript{48} Researchers have found that after 2 years of hormone therapy, at best 35% attain a B cup, which is “often disproportional to the existing male dimensions of the chest and height,”\textsuperscript{49} necessitating surgery. After two years of hormone therapy, no further development can be expected.\textsuperscript{50} “[B]ecause of anatomical differences in the male chest compared with the female chest, breast size

\textsuperscript{45} Christel Josefa Maria de Blok et al., \textit{Breast Development in Transwomen After 1 Year of Cross-Sex Hormone Therapy: Results of a Prospective Multicenter Study}, 103 \textit{The J. of Clinical Endocrinology & Metabolism} 532, 534 (2017).

\textsuperscript{46} \textit{Id.}

\textsuperscript{47} \textit{Id.}


\textsuperscript{49} Gooren & Asscheman, \textit{supra} note 43, at 281.

\textsuperscript{50} \textit{Id.}
may appear smaller than the actual objectively measured volume."51 Additionally, surgeons must use larger-than-usual implant sizes in transgender women to create a female chest on larger, phenotypically male chests,52 further illustrating the need for transgender women to have larger breasts than cisgender women to achieve a female chest and female habitus.

3. **Breasts are recognized as an important sex characteristic in transgender men and mastectomy is universally covered.**

The fact that insurance companies recognize that the presence or absence of breasts is an important secondary sex characteristic is reflected by the universal, categorical coverage of chest reassignment surgery for transgender men.53 It is covered because like chest feminization, chest masculinization has been shown to alleviate chest dysphoria. However, considering breasts to be an important sex characteristic when it comes to transgender men—but not transgender women—is not only arbitrary, it is also sex discrimination.

Transgender men with very small breasts are still covered for their removal based on a letter from a mental health provider stating that the person has gender dysphoria. Insurance companies do not suggest that never taking off one’s shirt in public or binding breasts is an appropriate treatment for gender dysphoria in transgender men. The criteria for chest surgery in transgender men is not related to the size of their breasts, but rather to the presence of gender dysphoria.

By the same token, for transgender women, the criterion for whether surgery is appropriate is not the size of breasts but rather the presence or absence of gender dysphoria. The fact that some transgender women have some breast growth as a result of hormone therapy is not relevant.

51 de Blok, *supra* note 45, at 533.

52 Papa, *supra* note 25, at 146-47.

Transgender men have some breast atrophy as a result of testosterone therapy, but testosterone therapy is not a prerequisite for surgery nor is it regarded as an appropriate treatment for chest dysphoria in transgender men. Appropriate treatment for chest dysphoria in transgender women is not never looking in the mirror, never taking one’s shirt off in front of others, or wearing breast prosthetics but is instead chest reassignment surgery—the only treatment that can permanently eliminate gender dysphoria caused by having a male chest.

4. Breasts are recognized as an important sex characteristic in cisgender women and breast reconstruction coverage is legally mandated.

In the past, coverage for breast reconstruction for breast cancer patients was also deemed “cosmetic” and was denied insurance coverage. After the enactment of the Women’s Health and Cancer Rights Act in the United States in 1998, universal coverage for post-mastectomy breast reconstruction was mandated. Further showing the importance of breast reconstruction to cancer patients, New York, for example, passed a law mandating that surgeons discuss the availability of reconstruction before cancer treatment and provide further information about insurance coverage.

When a woman loses her breasts to cancer, there are often “feelings of mutilation and altered body image, diminished self-worth, loss of a sense of femininity, decrease in sexual attractiveness and function, anxiety, depression, hopelessness, guilt, shame, fear of recurrence and...

54 Wylie C. Hembree et al., Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline, 102 J. CLINICAL ENDOCRINOLOGY & METABOLISM 1, 26 (2017) (‘Breast size only partially regresses with androgen therapy.’); WPATH Standards of Care, supra note 9, at 26 (noting “[a]trophy of breast tissue” as an effect of testosterone therapy).

55 Schechter, supra note 8, at 21 (“Following hormonal therapy, there is frequently some breast growth in the transwoman. However, the degree of breast growth is often inadequate, and individuals may continue to wear external prostheses or padded bras. As such, augmentation mammoplasty may be requested.”).


57 Id.
abandonment” that can negatively impact a woman’s perception of body
image and sexual functioning. Women also report a loss of self-esteem,
negative body image and avoidance of social interaction. Women
seeking reconstruction “are primarily motivated by a desire for
wholeness.” Immediate breast reconstruction significantly lessens
these negative outcomes when compared to those undergoing
mastectomy alone. This is likely due to the fact that those that pursue
immediate breast reconstruction do not experience the same degree of
self-consciousness that accompanies the loss of the breast. Much like
trans women, women who have reconstruction “are less likely to be
‘repulsed’ by their own naked appearance, and have more freedom to
dress than women who do not have reconstruction.” The importance
of breasts to cisgender women is thus well-established, and for similar
reasons, gender dysphoria-related chest reassignment should also be
covered.

II. This surgery is provided in accordance with applicable medical
and/or professional standards and is known to be effective, as
proven by scientific evidence, in materially improving health
outcomes.

A. Medical opinions of professional societies and standards
of care hold chest reassignment surgery in transgender
women to be clinically appropriate.

Internationally recognized medical associations and accepted standards
of care acknowledge the medical necessity of chest reassignment. The

58 C.M. Malata, *Immediate Breast Reconstruction After Mastectomy for Cancer*, 87
mastectomy are primarily motivated by a desire for wholeness.”).

59 Sema Koçan & Ayla Gürsoy, *Body Image of Women with Breast Cancer After

60 *Id.*

61 *Id.*; S.K. Al-Ghazal, *Comparison of Psychological Aspects and Patient Satisfaction
Following Breast Conserving Surgery, Simple Mastectomy and Breast Reconstruction*, 36


63 Malata, *supra* note 58, at 1466.
World Professional Association for Transgender Health is recognized by the American Medical Association ("AMA") and others as "the leading international, interdisciplinary professional organization devoted to the understanding and treatment of gender identity disorders."\(^6^4\)

The WPATH *Standards of Care* specifically recognize chest reassignment as a treatment for gender dysphoria and provide specific eligibility criteria (1. Persistent, well-documented gender dysphoria; 2. Capacity to make a fully informed decision and to consent for treatment; 3. Age of majority; and 4. If significant medical or mental health concerns are present, they must be reasonably well controlled).\(^6^5\)

WPATH also released a statement on medically necessary treatment for trans people that specifically listed “chest reconstruction or augmentation” as medically necessary surgeries.\(^6^6\) WPATH notes that, “[n]on-genital surgical procedures are routinely performed … notably, … breast augmentation,” and that “[t]hese surgical interventions are often of greater practical significance in the patient’s daily life than reconstruction of the genitals.”\(^6^7\) WPATH also specifically recommends, based on the *Standards of Care*, that breast augmentation should be covered by insurance plans.\(^6^8\)

The Endocrine Society—the world’s oldest, largest, and most active organization devoted to research on hormones and the clinical practice of endocrinology—has published clinical guidelines for treatment of gender dysphoric people, which provide detailed guidance for treatment

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\(^{6^4}\) AMA House of Delegates’ Resolution 122, *supra* note 10, at 1, ¶¶ 15-17 (April 18, 2008).

\(^{6^5}\) WPATH *Standards of Care*, *supra* note 9, at 59.


\(^{6^7}\) *Id.* at 3 (quoting Monstrey et al., *Surgery: Male-to-Female Patient, supra* note 15).

consistent with the WPATH Standards of Care.\(^69\) The guidelines note that breast development is “a major concern for transgender females” and that estrogens often do not produce the results a patient expects.\(^70\) They endorse breast surgery once the patient has completed two years of estrogen therapy.\(^71\)

**B. Breast development reduces gender dysphoria, is safe, increases psychological well-being, and improves social functioning and other health outcomes.**

Chest reassignment surgery for transgender women is the clinical standard of care as recognized in peer-reviewed medical literature.\(^72\) Chest reassignment alleviates gender dysphoria\(^73\) and associated comorbidities. It is only when the external body matches the brain’s sexed expectations of the body that subjective gender dysphoria and gender psychopathology progressively decreases.\(^74\) Clinicians note that “the acquisition of adequate female secondary sexual characteristics is a key part of a successful social gender role transition, upon which depends the good psychological functioning of the majority of transwomen. One

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\(^69\) Hembree et al., *supra* note 54.

\(^70\) *Id.* at 20.

\(^71\) *Id.* at 25.


\(^73\) Miller et al., *supra* note 20, at 69 (100% of patients reported improvement in their gender dysphoria).

of the most obvious of these characteristics is breast development.”  
Surgery increases psychological and social well-being by eliminating 
gender dysphoria caused by being seen as male.

A prospective, cross-sectional and longitudinal study evaluating the 
effects of cross-sex hormonal treatment on the psychological well-being 
of people with gender dysphoria found that among the effects of cross-
sex hormones on the body, it was only breast development that showed a 
significant effect on decreasing body uneasiness and reducing the 
symptoms of gender dysphoria. Breast development led to decreases in 
global body uneasiness, weight phobia, body image concerns, body 
avoidance, and depersonalization. While the study excluded women 
who had augmentation mammoplasty, it highlights the impact of having an 
external appearance that matches one’s brain sex on psychological 
well-being.

Transgender women rate the importance of their breasts highly and 
report high rates of satisfaction with their breasts post-surgery. Surgical 

75 Seal, supra note 32, at 4423.

76 Kanhai, Augmentation Mammaplasty, supra note 21, at 203, 205 (“The augmentation 
will then improve the psychological and social wellbeing of the [patient] reentering 
society as a woman.”).

77 Fisher, supra note 74, at 4267 (“However, it should be considered that the BUT scale 
is more related to the private relationship with one’s own body, rather than to the 
distress caused by how one may appear to others.”).

78 Id. at 4264.

79 Id. at 4261.

80 Fakin, supra note 16 (the largest gender-affirming center in Switzerland reports a 93% 
satisfaction rate); Tim C. van de Grift et al., Surgical Satisfaction, Quality of Life, and 
Their Association After Gender-Affirming Surgery: A Follow-up Study, 44 J. OF SEX & 
Marital Therapy 138, 143 (2017) (reporting 96% satisfaction rate with 
augmentation mammoplasty among patients in the European Network on the 
Investigation of Gender Incongruence); Weyers, supra note 41, at 510 (“When asked for 
the score (on a VAS from 0 to 10) they would attribute to the importance and the 
satisfaction of the appearance of their breasts they gave mean scores of 8.84 (±1.25) and 
of 7.94 (±2.28) respectively.”); Yolanda L. S. Smith et al., Sex Reassignment: Outcomes 
and Predictors of Treatment for Adolescent and Adult Transsexuals, 35 Psychological 
Medicine 89, 95 (2005) (Dutch centers report the “majority (34, 65.4%) were 
satisfied with their breast augmentation; 15 (28.8%) were not completely satisfied, and 
three felt uneasy about their breasts being too far apart.”); Griet De Cuypere, et al.,
chest reassignment improves numerous health outcomes. A prospective cohort study has shown that gains in breast satisfaction, psychosocial well-being, and sexual well-being after chest reassignment are statistically significant and clinically meaningful to the patient in both the short and long term. It also improves body satisfaction. Chest reassignment “is both meaningful and medically necessary in gender dysphoria.” Surgical intervention can significantly improve quality of life. It is also associated “with lower odds of suicidal ideation, binge drinking, and non-injection drug use.”

Feminizing the chest results in the likelihood that the patient will be recognized by others as a woman, which reduces gender dysphoria. Chest reassignment “can greatly facilitate the experience of living in a gender role that is congruent with a gender identity.” “Breast augmentation may also be influential in facilitating a patient’s social transition, and social transition is a prerequisite for vaginoplasty.”

Sexual and physical health after sex reassignment surgery, 34 ARCHIVES OF SEXUAL BEHAVIOR 679, 686 (2005) (66.6% were very satisfied 28.6% satisfied, 4.8% neutral, and no one was unsatisfied with breast surgery).

81 Weigert, supra note 40, at 1421.
82 Tim C. van de Grift et al., Effects of medical interventions on gender dysphoria and body image: a follow-up study, 79 PSYCHOSOMATIC MED. 815–818 (2017); Smith, supra note 80, at 93.
83 Morrison et al., supra note 7, at 337.
84 Nikolaos A. Papadopulos, Quality of Life and Patient Satisfaction Following Male-to-Female Sex Reassignment Surgery, 14 J. OF SEXUAL MED. 721 (2017) (showing a high satisfaction with breasts following genital and/or chest reassignment surgery).
85 Erin C. Wilson et al., Connecting the Dots: Examining Transgender Women’s Utilization of Transition-Related Medical Care and Associations with Mental Health, Substance Use, and HIV, 92 J. OF URBAN HEALTH: BULLETIN OF THE NEW YORK ACADEMY OF MEDICINE, 182, 188 (2014).
86 Claes, supra note 18, at 369; Colebunders et al., supra note 39 at 53.
87 Cuccolo, supra note 48 at 2; Claes, supra note 18, at 369-70 (“provides a more feminine profile, facilitating adjustment to the gender identity”); Kanhai, supra note 21, at 542 (noting that mammaplasty allows the patient to be recognized as a woman “more easily, both in public and in private,” which facilitates living openly as a woman).
The chest is more important for social recognition as female than genital reassignment surgery, which is a covered treatment.

While chest reassignment is undertaken primarily to help alleviate the debilitating cognitive dissonance and discomfort of gender dysphoria, there are also effects in terms of reducing negative encounters with others. Misgendering, staring and confusion by others trigger gender dysphoria and threaten the well-being and safety of transgender women. People who are visibly transgender—generally due to their secondary sex characteristics—experience more discrimination than non-visibly transgender people.88 The more frequently a person is seen as transgender by others, “the more they are subject to major and day-to-day discriminatory treatment.”89 Visibly transgender people commonly experience microaggressions in the form of misgendering or questioning of their gender.90 These microaggressions (as well as threats of violence) contribute to a need for vigilance and minority stress—the chronic stress experienced by transgender people, which has negative implications for mental health.91 Experiencing transgender-related discrimination and verbal or physical harassment—which is more likely when people are visibly transgender—specifically increases suicide risk.92 In addition, being visibly transgender results in a greater likelihood of attempted drug/alcohol abuse and smoking.93 Chest reassignment thus creates


89 Id. at 826.

90 Kevin L. Nadal et al., Interpersonal and Systemic Microaggressions Toward Transgender People: Implications for Counseling, 6 J. of LGBT Issues in Counseling, 55–82. (2012).


93 Miller & Grollman, supra note 88, at 826.
health gains beyond alleviating gender dysphoria and attendant depression and anxiety.

In a point that emphasizes both the extreme distress caused by gender dysphoria and the need for surgical treatment, when denied access to proper medical treatment, some transgender women attempt to alleviate their chest dysphoria by reshaping their bodies through “pumping,” the use of highly dangerous black market injections by non-medical professionals of industrial-grade silicone into their chests. Silicone injection prevalence approaches 1 in 3 among lower-income trans women. These injections can cause severe disfigurement, chronic pain and complications such as pulmonary emboli, silicone pneumonitis, acute respiratory distress syndrome, abscesses, liver disease, septic shock, puncture of internal organs, and death. The breasts can become rock


95 See Cathy J. Reback et al., The Los Angeles Transgender Health Study: Community Report 17 (2001) (finding one-third of trans women injected silicone or oil); Robert Garofalo, Overlooked, Misunderstood and At-risk: Exploring the Lives and HIV Risk of Ethnic Minority Male-To-Female Transgender Youth, 38 J. OF ADOLESCENT HEALTH 230, 233 (2006) (finding 29% of participants had injected liquid silicone); Society for Public Health Education, Health Impact of Adulterated Silicone on Transgender Health: Call for Education and Awareness about Adulterated Injection Silicone Use (2012) (noting prevalence rates of 25% in Washington, DC, 30% in New York, and 33% in Los Angeles); Paul Kobrak, Bureau of HIV/AIDS Prevention and Control, New York City Department of Health and Mental Hygiene, Transgender Women and HIV Prevention in New York City: A Needs Assessment 17 (2009) (finding 22% of participants in this NYC needs assessment had received silicone injections).

injections of silicone); Lindy Peta Fox, et al., *Mycobacterium Abscessus Cellulitis And Multifocal Abscesses of the Breasts in a Transsexual from Illicit Intramammary Injections of Silicone*, 50 J. of AM. ACADEMY OF DERMATOLOGY at 450 (2004) (infections, which cause chronic lung disease and post-traumatic wound infections, can be added to the potential complications of silicone injections, which also “include cellulitis, granulomatous reactions, migration of material, ulceration, scarring, pneumonitis, granulomatous hepatitis, reactive systemic illnesses, and iatrogenic infection”); Richard F. Clark, *Subcutaneous Silicone Injection Leading to Multi-system Organ Failure*, 46 CLINICAL TOXICOLOGY 834 (2008) (describing five trans women who attended a “pumping party” resulting in the death of one of them); Hage *supra* note 94 (subcutaneous injections of massive quantities of mineral oil or silicone lead to complications ranging from a change in skin color to death, and there are no available treatments to alleviate the effects); Anupam M. Desai, *Etanercept Therapy for Silicone Granuloma*, 5 J. OF DRUGS IN DERMATOLOGY 894 (2006) (injecting silicone leads to difficult-to-treat silicone granulomas that not only cause a local inflammatory response at the injection site, but spread widely throughout the body); Marianna Shvartsbeyn, *Silicon-associated Subcutaneous Lesion Presenting as a Mass: A Confounding Histopathologic Correlation*, 42 HUMAN PATHOLOGY 1364 (2011) (discussing the harmful effects and risks of unskilled practitioners using silicone of questionable purity); Antonio Villa, *Severe Pulmonary Complications after Silicone Fluid Injection*, 18 THE AM. JOURNAL OF EMERGENCY MEDICINE 336 (2000) (determining that “the risk of adverse systemic effects, particularly severe pulmonary involvement, can be very high for silicone fluid injection, especially when delivered in large volume and when injections are given without medical precautions as with transsexual [women]”); Andreas Schmid, *Silicone Embolism Syndrome a Case Report, Review of the Literature, and Comparison With Fat Embolism Syndrome*, 127 CHEST 2276 (2005) (presenting data from thirty-two patients who were hospitalized after illegal silicone injections, six of whom died, while twenty-six were discharged within three weeks after experiencing respiratory symptoms); Ayke L. Oen, *Magnetic Resonance Imaging of Injected Silicone: Findings in Seven Male-to-Female Transsexuals*, 12 EUROPEAN RADIOLOGY 1221 (2002) (triggering local as well as systemic reactions, sometimes many years after injection, silicone injections have devastating effects that indicate that silicone is not as inert as previously thought); Tan Duong, *Acute Pneumopathy in a Nonsurgical Transsexual*, 113 CHEST 1127 (1998) (discussing the risk of acute and latent pneumonopathy for individuals after illicit silicone injections); E. Pastor, *Acute Pneumonitis and Adult Respiratory Distress Syndrome after Subcutaneous Injection of Liquid Silicone*, 41 ARCHIVOS DE BRONCONEUMOLOGÍA 702 (2005) (emphasizing the threat of pneumonitis, which is the potentially fatal inflammation of the lung tissue, following a silicone injection); F. Sanz-Herrero, *Acute Pneumonitis after Subcutaneous Injection of Liquid Silicone as a Breast Implant in a Male-To-Female Transsexual*, 42 ARCHIVOS DE BRONCONEUMOLOGÍA 205 (2006) (noting silicone injected into the breast threatens to reach the bloodstream and spread widely throughout the body risking severe systemic (mainly pulmonary) adverse effects).
hard, tender, and exhibit extensive fibrosis, chronic inflammation, and foreign body giant cell reactions leading to a need for mastectomy and reconstructive surgery.97

In contrast, this surgery is safe. It is commonly performed on cisgender women and is already covered under insurance for other purposes. Data from the ACS National Surgical Quality Improvement Program database comparing 280 transgender surgeries with 1080 cosmetic breast augmentation surgeries concluded that “[t]ransfeminine breast augmentation is a safe procedure that has a similar complication profile to its cisgender counterpart”98 with rates of all-cause complications and readmission less than 2% for both groups.

C. Other insurers and state Medicaid plans acknowledge this care to be medically necessary.

Private insurers and Medicare advantage Medicaid managed care plans routinely cover chest reassignment procedures and regard them as medically necessary; those that do not are out of alignment with prevailing medical opinion.99 Independent medical review agencies have


long overturned coverage denials for breast augmentation to treat gender dysphoria.\textsuperscript{100} In California, under the Independent Medical Review, 7 out of 8 denials were overturned; in the upheld case, the patient had reached Tanner stage 5.\textsuperscript{101} Medicaid regulations and coverage guidelines also explicitly cover chest reassignment surgery.\textsuperscript{102}

\textbf{D. Blanket exclusions for this surgery are unlawful.}

Under the direction of the Washington State Insurance Commissioner, two Kaiser Foundation health plans reversed their practice of categorically denying chest reassignment surgery for transgender women.\textsuperscript{103} The agreement included re-review of past denials. The action

\begin{itemize}
\item Plan, Johns Hopkins Healthcare, Kaiser, Keystone First, LifeWise, Medica, Moda Health Plan, Molina Healthcare, Neighborhood Health Plan, Neighborhood Health Plan of RI, Premera Blue Cross, Premier Health Plan, Presbyterian, Prestige Health Choice, Regence, Tufts Health Plan, Uniform Medical Plan, University Health Alliance, UPMC Health Plan, Visiant, WellCare, Wellmark BCBS, and YourCare Health Plan).
\end{itemize}

\textsuperscript{100} MAXIMUS Federal Services Inc. review (June 26, 2015). IPRO review (Feb. 6, 2019). Decisions on file with TLDEF and available upon request.

\textsuperscript{101} California Dep’t. of Managed Care, \textit{Independent Medical Review Search}, https://wpso.dmhc.ca.gov/imr.


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was based on Section 1557 of the Affordable Care Act and Washington state’s mental health parity laws.

Similarly, the New York Attorney General investigated EmblemHealth for its failure to cover breast surgeries. As part of the settlement, EmblemHealth changed its coverage criteria, paid full restitution to members and paid $250,000 penalties to New York State. The investigation found that EmblemHealth’s inaccurate guidelines constituted repeated violations of Executive Law § 63 (12) (repeated fraudulent or illegal acts) and General Business Law § 349 (deceptive acts or practices).

III. Chest reassignment is designed to change the sex of the chest, not improve appearance.

Exclusions for chest reassignment surgery rest on the incorrect assumption that the surgery is “cosmetic.” In reality, it is not undertaken to “improve appearance,” but rather to change the sex of an individual’s chest from male to female. Covering chest reassignment surgery for transgender women is consistent with providing other treatments for gender dysphoria as well as continuing to exclude all cosmetic procedures. These procedures cannot be viewed outside of the context in which they are provided: namely, treating gender dysphoria.

Just as a cisgender man would not undergo genital reassignment surgery in order to “improve his appearance,” a cisgender man would not improve his appearance by undergoing chest reassignment surgery. It would give him a female chest, which on a man, would be regarded as negatively affecting his appearance. Breast augmentation surgery would likely be traumatizing to most men. Indeed, a man who experienced gynecomastia without being warned it was a drug side effect was awarded compensatory damages of $680,000 and a jury ordered $8 billion in punitive damages.


Covering this surgery for gender dysphoria does not mean that cisgender women can seek coverage for cosmetic breast surgery. Although the surgery is performed using largely the same surgical techniques in cisgender and transgender women, the purposes are fundamentally different. Cisgender women seeking cosmetic breast surgery are not seeking sex reassignment or treatment for any medical condition at all. A cisgender woman with breasts is already recognized as female and the surgery would not be changing her sex in any way.\textsuperscript{106} Outside of congenital conditions that result in hypomastia, women seeking cosmetic breast augmentation do not have a diagnosis for which breast augmentation is the standard treatment. Breast augmentation, for example, is not a recognized treatment for depression or anxiety. In contrast, “[w]hen a transgender woman presents for this same surgery, it is medically necessary. The transgender patient usually has a long history of distress caused by gender dysphoria.”\textsuperscript{107}

That is why WPATH explains that “medical procedures attendant to sex reassignment are not ‘cosmetic’ or ‘elective’ or for the mere convenience of the patient. These reconstruction procedures are not optional in any meaningful sense[] but are understood to be medically necessary for the treatment of the diagnosed condition.”\textsuperscript{108} The AMA has also stated that sex reassignment procedures are not cosmetic.\textsuperscript{109} The

\textsuperscript{106} Even if a cisgender woman had small breasts, she would lack the constellation of other physical characteristics that—in conjunction with a male chest—can cause transgender women to be consistently perceived as male such as height, habitus, and voice.


\textsuperscript{108} WPATH, \textit{Position Statement}, \textit{supra} note 66, at 3.

\textsuperscript{109} See AMA House of Delegates’ Resolution 122, \textit{supra} note 10, at 1, ¶¶ 22-28 (“An established body of medical research demonstrates the effectiveness and medical necessity of mental health care, hormone therapy and sex reassignment surgery as forms of therapeutic treatment for many people diagnosed with GID . . . . Health experts in GID, including WPATH, have rejected the myth that such treatments are ‘cosmetic’ or ‘experimental’ and have recognized that these treatments can provide safe and effective treatment for a serious health condition.”).
WPATH *Standards of Care* specifically note that “breast/chest surgical treatments for gender dysphoria are not merely another set of elective procedures. Typical elective procedures involve only a private mutually consenting contract between a patient and a surgeon.”110 In contrast, “breast/chest surgeries as medically necessary treatments for gender dysphoria are to be undertaken only after assessment of the patient by qualified mental health professionals,” as outlined in the *Standards of Care*.111

Even if surgery were to have an incidental effect of objectively “improving” appearance, that does not bar coverage because the primary purpose is to change the sex of the chest to treat gender dysphoria, not to improve appearance.112 Trans women do not seek surgery simply for the sake of having larger breasts. Instead, “[t]rans women are primarily interested in a sufficient degree of breast development confirming the gender role of a woman to themselves and to the outside world.”112 Chest reassignment surgery goes far beyond any incidental “improvement” in appearance and affects something far more fundamental: the very characteristics that define one’s physical sex.

**IV. Conclusion**

Peer-reviewed medical literature, medical opinions of professional societies, evidence-based professional standards of care, and the opinions of health care professionals involved in the specialty of treating gender dysphoria all concur that chest reassignment surgery is safe, effective, and medically necessary for treating gender dysphoria in transgender women.

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110 WPATH *Standards of Care*, supra note 9, at 55.

111 *Id.*

112 *E.g.*, Aetna, Clinical Policy Bulletin No. 0031: Cosmetic Surgery (Mar. 23, 2019), http://www.aetna.com/cpb/medical/data/1_99/0031.html (“Aetna plans … provide coverage when the surgery is needed to improve the functioning of a body part or otherwise medically necessary even if the surgery also improves or changes the appearance of a portion of the body.”)