CONCLUSION: FTM gender confirmation chest surgery can be safely offered using a drain-free technique. Compared to historical data the use of progressive tension sutures decrease the incidence of hematoma and the need for acute re-operation. They may also facilitate a shorter hospital stay and a decreased need for revision surgeries.

A Comparison of Relative Parameters in Male and Female Nipple-Areola Complexes: An Observational Study Using a Novel Online Search Technique and Implications for Transgender Top Surgery

**Presenter:** Lei Alexander Qin, BS  
**Co-Author:** Jess Ting, MD

**Affiliation:** Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Lake Success, NY

**BACKGROUND:** Chest masculinization and breast augmentation, often collectively referred to as “top surgery” in the transgender community, are frequently performed procedures for female-to-male (FTM) and male-to-female (MTF) individuals, respectively. Numerous studies have investigated the optimal placement of the nipple-areola complex (NAC) in chest masculinization and male gynecomastia surgeries through the selection of healthy male-identifying volunteers, but few have recruited female-identifying volunteers. The aim of this study was to use images collected from various online databases as a novel method to identify surgically relevant ratios for transgender top surgery and differences between the male and female NAC.

**METHODS:** Two hundred images (50% female, 50% male) were compiled from online database searches. Inclusion criteria for the images were as follows: 1) upright position; 2) subjects’ arms hanging to their sides in a relaxed position. Multiple parameters, including areola width (AW), areola height (AH), nipple width (NW), nipple height (NH), clavicle to inframammary fold (IMF), NAC to IMF, internipple distance (IND), and chest width (CW), were measured using GNU Image Manipulation Program (GIMP). The following ratios between male and female groups were compared using unpaired t-tests (alpha error set to 0.05): 1) AW to AH; 2) NW to NH; 3) NAC to IMF to clavicle to IMF; 4) sternum notch to CW; and 5) IND to CW.

**RESULTS:** There was a statistically significant difference for male versus female groups in AW to AH (1.284 vs 1.019, p<0.0001), NAC to IMF to clavicle to IMF (0.1306 vs 0.2661, p<0.0001), and IND to CW (0.7529 vs 0.7292, p<0.0073). There was no significant difference for male versus female groups in sternal notch to CW (0.6438 vs 0.6304, p=0.3674), or NW to NH (1.181 vs 1.124, p=0.3850).

**CONCLUSION:** Our results highlight many important differences between the placement of the male NAC versus the female NAC that must be considered during chest masculinization and breast augmentation surgeries. The results from our study suggest that the male NAC is more oval in shape, more laterally placed, and located more superiorly than the female NAC. These results corroborate previously established data from other research groups and anecdotal observations from various surgeons who perform gender-affirmation procedures. The results from our study provide a unique method for female and male NAC comparison and demonstrate that there are objective differences between the male and female NAC that can be utilized in clinical practice to improve upon current “top surgery” standards of care.

An Economic Analysis of Financial Barriers to Access Comprehensive Gender Confirmation Surgery

**Presenter:** Sven Gunther, MD, MAS  
**Co-Author:** Anand R. Kumar, MD, FACS

**Affiliation:** UH Cleveland Medical Center, Case Western Reserve University, Cleveland, OH

With the increase in insurance coverage and social acceptance in the USA there has been an increase in transgender patients seeking gender confirming procedures from plastic surgeons. The purpose of this study is to compare the estimated cost for genital reconstruction with vaginoplasty vs. phalloplasty in the transgender patient. Given the drastic differences in these procedures we primarily
hypothesize that the cost of female to male transformation will be significantly higher when compared to male to female transformation due to the complexity of neophallus creation, and extended hospital stay due to free flap. The aim of this study is to review available cost estimates publicly available and at our institution for cost analysis.

A comprehensive literature search of PUBMED for associated cost of vaginoplasty and phalloplasty in the transgender patients was conducted as well as Internet browser search for any private practice surgical pricing. Our academic professional fees were readily available from the billing department. Facility fees were estimated based on average lengths of gender conformation surgeries and duration of convalescence. One surgery center was found to have posted pricing for vaginoplasty and phalloplasty on their website which was included in analysis.

When comparing genital reconstruction total estimated cost in the transgender community, neophallus formation costs more than neovagina formation with a difference of $17,152.00 (35.4% increase) at our institution and mirrored in the private practice surgery center with a difference of $1,500.00 (7.6% increase). This discrepancy in cost may lead to financial barriers to access comprehensive gender affirming surgery.

### Body Sculpting of Difficult Body Areas with 3D-Cryolipolysis. Prospective Study Following 604 Sessions

**Presenter:** Stavroula Rodopoulou, MD. FEBOPRAS

**Co-Author:** Evangelos Keramidas, MD. FEBOPRAS

**Affiliation:** Kosmesis Aesthetic Plastic Surgery Center, Athens

**PURPOSE:** 3D-Cryolipolysis is a non-surgical technique for localized fat reduction. We investigated the efficacy and safety of the technique when applied to more unusual body areas.

**MATERIAL AND METHODS:** A prospective study of patients treated with 3D-cryolipolysis in difficult body areas (e.g. arms, back rolls, axilla, operated/difficult abdomen, lower flanks, buttocks, inner thighs, anterior thighs, pubis, knees, lower legs, and male breasts) was performed. Clinical outcomes were assessed (according to GAIS 5-point scale) using caliper measurements, patient surveys and 2 blinded plastic surgeon’s photographs evaluation. The studies were conducted using a commercially available non-invasive medical device for cryolipolysis. All patients received gentle massage of the treated area for 3 minutes and the follow up ranged from 3-24 months.

**RESULTS:** 308 patients (282 women and 26 men), were enrolled in our study from May 2016- May 2017. Mean age of the patients was 43 years old (19–68) and the mean Body Mass Index (BMI) was 24.2 (19–39). 305 patients had treatment to one area, 145 patients to 2 areas and 58 patients in 3 areas. Overall, 592 different areas were treated. Most treated area were the arms: 158, knees: 140, back rolls/axilla: 84, inner thighs: 78, lower flanks: 40, anterior thighs: 34, pubis: 10, gynecomastia: 30, operated/difficult abdomen: 10, buttocks: 12, lower legs: 8. Comparison of the pre- and post-treatment caliper measurements demonstrated significant reduction of the treated areas at 15–40% at 2.5 months. Post-treatment 85% of patients marked the results as very much improved or much improved, 10% improved, 5% no change and 0% worse. Plastic surgeons’ photographs assessment demonstrated 65% very much improved or much improved results and 25% improved results and 10% no change. Following the treatments, 65% of the patients experienced mild edema that lasted for 24-48 hours, 27% of the patients had bruises and 32% numbness that were all resolved in 7–15 days.

**CONCLUSION:** 3D-Cryolipolysis is a safe and effective non-invasive localized fat reduction technique even for more unusual and resistant body areas. The majority of patients have good body sculpting results without the side effects of invasive procedures.

### Noninvasive Body Contouring Techniques: What Is the Evidence?

**Presenter:** Stelios C. Wilson, MD

**Co-Authors:** Salma A. Abdou, BA; Samantha G. Maliha, BA; David A. Daar, MD, MBA; Steven M. Levine, MD