



# Abstract: Surgical Treatment of Gynecomastia Improves Quality-of-Life in Adolescents: A Longitudinal Cohort Study

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**CONCLUSION:** Existing evidence tends to show better sexual well-being in lumpectomy and reconstruction patients compared to mastectomy-only patients; analysis would be more robust if data was comparable across more studies. Patients and surgeons would likely benefit from additional, higher-evidence explorations of sexual well-being in breast cancer patients.

### The Patient Registry and Outcomes for Breast Implants and Anaplastic Large Cell Lymphoma Etiology and Epidemiology (PROFILE) Registry: Results from a National Registry

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**INTRODUCTION:** In collaboration with the FDA, the American Society of Plastic Surgeons together with the Plastic Surgery Foundation set out to develop a national registry (PROFILE) where all cases of Breast Implant-Associated Anaplastic Large Cell lymphoma (BI-ALCL) could be centralized. The registry was designed to capture all critical data elements needed to evaluate factors associated with ALCL in women with breast implants.

**METHODS:** The first report of these findings is presented here.

**RESULTS:** A total of 148 distinct, pathologically confirmed cases of BI-ALCL in the United States alone were reported to PROFILE from October 2011 to June 2017. To date, complete case report forms have been submitted for 77 (52%) of cases. Of this subset, 53% had a history of cosmetic breast augmentation; 43% had a history of post-mastectomy reconstruction. Mean time from implantation to diagnosis was 11 years. 43% had saline implants 51% involved silicone implants. Acellular dermal matrices were reported in 6% of cases. Presenting symptoms included 78% peri-prosthetic seroma, 18% palpable breast mass; 25% grade III/IV capsular contracture. Implant

characteristics, pathologic markers and oncologic follow-up with treatment outcomes are reviewed.

**CONCLUSION:** This registry is the first of its kind in the United States. The PROFILE registry offers a systematic way to collect complete and consistent data on women diagnosed with the disease. At a time when the safety of breast implants remains under close scrutiny, the ongoing collection of data from this registry will continue to be critical in the evaluation of ALCL and breast implants.

### Surgical Treatment of Gynecomastia Improves Quality-of-Life in Adolescents: A Longitudinal Cohort Study

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**INTRODUCTION:** Gynecomastia, the benign enlargement of male glandular breast tissue, has been associated with psychosocial deficits for affected adolescents. This longitudinal cohort study was performed to evaluate whether surgical treatment effectively alleviates the associated negative health-related-quality-of-life (HRQOL) symptoms of adolescent gynecomastia.

**METHODS:** Validated surveys were administered to adolescents with persistent gynecomastia (>3 years) and unaffected male controls, aged 12–21 years, from 2008–2017: the Short-Form 36v2 (SF-36), Rosenberg Self-Esteem Scale (RSES), and Eating-Attitudes Test-26 (EAT-26). Patients with gynecomastia completed baseline surveys preoperatively and following gynecomastia correction at 6 months, 1 year, 3 years, and 5 years follow-up. Control subjects completed baseline and follow-up surveys at the same time intervals.

**RESULTS:** Thirty patients undergoing operative gynecomastia treatment and 63 male controls were included. Gynecomastia and control subjects were comparable in age ( $16.5 \pm 2.0$  and  $15.7 \pm 2.4$  years, respectively,  $p=0.108$ ), though a higher

proportion of patients with gynecomastia were overweight/obese (80.0%) compared to controls (33.3%;  $p < 0.001$ ). Patients were followed-up for an average of 28.3 months.

At baseline, subjects with gynecomastia scored statistically significantly less favorably than controls in five SF-36 domains (general health, vitality, social functioning, role-emotional, and mental health), the RSES, and the EAT-26 ( $p < 0.05$  for all). By 6 months follow-up, postoperative subjects were scoring similarly to controls in four of the aforementioned SF-36 domains (vitality, social functioning, role-emotional, and mental health) ( $p > 0.05$  for all), and by 1 year follow-up postoperative subjects scored similarly to control subjects in all survey measures ( $p > 0.05$  for all). Scores remained comparable at 3 year and 5 year follow-up ( $p > 0.05$  for all). These trends were largely unaffected by patient age group (i.e.  $< 18$  years and  $> 18$  years), and were not influenced by overweight/obese BMI status. Linear regression models, using baseline BMI category as a covariate, demonstrated no statistically significant difference in patients' most recent postoperative/follow-up survey scores based on case status ( $p > 0.05$  for all).

**CONCLUSION:** These results illustrate the benefit of operative treatment on HRQOL for adolescents with gynecomastia. Within a year of follow-up, HRQOL in postoperative patients was comparable to controls, and measureable deficits in psychosocial well-being were alleviated. These benefits were largely unaffected by patient age and BMI category. Patients, parents, and providers should be aware of the positive impact that surgical intervention can provide adolescents with gynecomastia.

## Current Trends in Breast Augmentation - an International Analysis

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**INTRODUCTION:** Breast augmentation is one of the most frequently performed aesthetic surgical procedures worldwide. There are many different surgical options regarding preoperative evaluation, surgical technique, and postoperative care. Our goal was to evaluate current international trends and practices.

**METHODS:** A 36-item breast augmentation questionnaire was sent to over five thousand active breast surgeons in over 20 countries worldwide. The survey included questions regarding current controversies, new technologies, common practices, secondary procedures, and surgeon demographics.

**RESULTS:** There were a total of 603 respondents with a response rate of 14 percent. While certain standards and common practices seem to prevail on an international basis, there exist several interesting geographic differences. For example, while almost fifty percent of surgeons in the USA and Latin America never use anatomically shaped implants, in Europe and Oceania only 10 percent never use such implants. Similarly, worldwide (Latin America, Europe, Asia, and Oceania), over 80 percent of surgeons use silicone implants only, compared to 20 percent in the US. Also, US surgeons use larger implants (78 percent  $> 300$ cc). Internationally, dominant practice preferences include among others preoperative sizing with silicone implants, inframammary incisions, and use of partial submuscular pockets.

**CONCLUSION:** Significant international differences exist in breast augmentation. While there are some similarities regarding preoperative evaluation, surgical technique, and postoperative care, there are region-specific preferences illustrated in our investigation. Continued research evaluating new and promising tools will allow surgeons to provide the highest level of evidence-based care to improve outcomes.

## Bipedicled Pectoralis Major Muscle Flap Suspension Mastopexy

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