

Variable	Definition
Patient demographics	
Age (years)	Patient age (years) at the time of surgical intervention. This variable was dichotomized and patients were categorized as either older or younger than the cohort mean.
Weight (kg)	Patient weight (kg) measured at initial surgical consultation.
Height (m)	Patient height (m) measured at initial surgical consultation.
BMI (kg/m ²)	Body mass index (kg/m ²) calculated using patient weight (kg) divided by the square of the patient height (m ²).
BMI category*	Dichotomized as either “healthy weight” or “overweight/obese” based on BMI or BMI percentile, depending on patient’s age, as indicated by CDC guidelines. ^{9,10}
BSA (m ²)	Body surface area (m ²) calculated according to DuBois and DuBois formula. ^{12,13}
Race/ethnicity	Binary variable, categorized as either “white, non-Hispanic” or “racial/ethnic minorities”.
Operative parameters	
Breast resection mass (g)	Intraoperative combined weight (g) of bilateral reduction mammoplasty specimens.
Macromastia severity value (g/m ²)	Breast resection mass (g) divided by BSA (m ²) to normalize macromastia severity to patient body habitus. ¹¹
Pubertal history	
Precocious puberty	Approximated using thelarche occurring before 8 years of age. ^{14,15}
Early menarche	Menarche occurring before bottom 25 th percentile of sample (before 11 years old).

Gynecological/endocrine history	
Patient-reported gynecological/endocrine complaints	Categorical variable inclusive of patient-reported gynecological and/or endocrine complaints.
Physician-diagnosed gynecological/endocrine disease	Categorical variable inclusive of physician-diagnosed gynecological and/or endocrine disease, inclusive of polycystic ovarian syndrome, precocious puberty requiring intervention, endometriosis, irregular periods, dysmenorrhea, menorrhagia, amenorrhea, and dysfunctional uterine bleeding.
Social history	
Any recreational drug use	Any history of recreational drug use, inclusive of the categories listed below (marijuana, alcohol, tobacco) as well as any other self-reported substance.
Marijuana use	Any history of marijuana consumption.
Alcohol use	Any history of alcohol consumption.
Smoking and tobacco use	Any history of smoking and/or other forms of tobacco consumption.
Family history	
Family history of macromastia	Any known family history of macromastia.
First degree relative with macromastia	At least one first degree relative with a history of macromastia.
Family history of	Any known family history of breast cancer.

breast cancer	
First degree relative with breast cancer	At least one first degree relative with a history of breast cancer.
Medication use	Medication use (over-the-counter or prescription) within the three months leading up to initial surgical consultation.

* Note that underweight patients did not feature in our cohort, hence the omission of this category.

BMI: body mass index; **CDC:** Centers for Disease Control and Prevention; **BSA:** body surface area