

Breast

For other uses, see Breast (disambiguation).

"Boobs" redirects here. For other uses, see Boobs (disambiguation).

The **breast** is one of two prominences located on the upper ventral region of the torso of female primates. In females, it serves as the mammary gland, which produces and secretes milk and feeds infants.^[2] Both females and males develop breasts from the same embryological tissues. At puberty, estrogens, in conjunction with growth hormone, cause breast development. Males do not develop pronounced or physiologically matured breasts because their bodies produce lower levels of estrogens and higher levels of androgens, namely testosterone, which suppress the effects of estrogens in developing breast tissue. The breasts of females are typically far more prominent than those of males.

Subcutaneous fat covers and envelops a network of ducts that converge on the nipple, and these tissues give the breast its size and shape. At the ends of the ducts are lobules, or clusters of alveoli, where milk is produced and stored in response to hormonal signals.^[3] During pregnancy, the breast responds to a complex interaction of hormones, including estrogens, progesterone, and prolactin, that mediate the completion of its development, namely lobuloalveolar maturation, in preparation of lactation and breastfeeding. Upon childbirth, the alveoli are stimulated to produce and secrete milk for infants.

Along with their function in feeding infants, female breasts have social and sexual characteristics. Breasts have been featured in notable ancient and modern sculpture, art, and photography. Female breasts can figure prominently in a woman's perception of her body image and sexual attractiveness. A number of Western cultures associate breasts with sexuality and tend to regard bare breasts in public as immodest or indecent. Breasts and especially the nipples are an erogenous zone on women. Given the emphasis of some cultures on breast size and attractiveness, some women seek breast augmentation or other kinds of surgery to enlarge or reduce their breast size or to reverse sagging breasts.

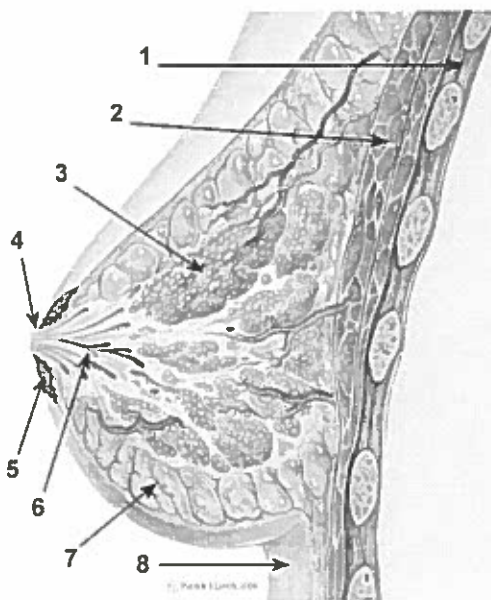
1 Etymology and terminology

The English word *breast* derives from the Old English word *brēost* (breast, bosom) from Proto-Germanic *breustam* (breast), from the Proto-Indo-European base

bhreus- (to swell, to sprout).^[4] The *breast* spelling conforms to the Scottish and North English dialectal pronunciations.^[5] The *Merriam-Webster Dictionary* states that "Middle English *breast*, [comes] from Old English *brēost*; akin to Old High German *brust*..., Old Irish *brú* [belly], [and] Russian *bryukho*"; the first known usage of the term was before the 12th century.^[6]

A large number of colloquial terms for breasts are used in English, ranging from fairly polite terms to vulgar or slang. Some vulgar slang expressions may be considered to be derogatory or sexist to women.^[7]

2 Anatomy



The Breast: cross-section scheme of the mammary gland.

1. Chest wall
2. Pectoralis muscles
3. Lobules
4. Nipple
5. Areola
6. Milk duct
7. Fatty tissue
8. skin



In women, the breasts overlay the pectoralis major muscles and usually extend from the level of the second rib to the level of the sixth rib in the front of the human rib cage; thus, the breasts cover much of the chest area and the chest walls. At the front of the chest, the breast tissue can extend from the clavicle (collarbone) to the middle of the sternum (breastbone). At the sides of the chest, the breast tissue can extend into the axilla (armpit), and can reach as far to the back as the latissimus dorsi muscle, extending from the lower back to the humerus bone (the longest bone of the upper arm). As a mammary gland, the breast is composed of differing layers of tissue, predominantly two types: adipose tissue; and glandular tissue, which affects the lactation functions of the breasts.^{[8]:115}

Morphologically the breast is a cone, with the base at the chest wall and the apex at the nipple, the center of the nipple-areola complex. The superficial tissue layer (superficial fascia) is separated from the skin by 0.5–2.5 cm of subcutaneous fat (adipose tissue). The suspensory Cooper's ligaments are fibrous-tissue prolongations that radiate from the superficial fascia to the skin envelope. The female adult breast contains 14–18 irregular lactiferous lobes that converge at the nipple. Milk exits the breast through the nipple, which is surrounded by a pigmented area of skin called the areola. The size of the areola can vary widely among women. The areola contains modified sweat glands known as Montgomery's glands. These glands secrete oily fluid that lubricate and protect the nipple during breastfeeding.^[9] Volatile compounds in these secretions may also serve as an olfactory stimulus for the newborn's appetite.^[10]

The 2.0–4.5 mm milk ducts are immediately surrounded with dense connective tissue that support the glands. The glandular tissue of the breast is biochemically supported by estrogen. When a woman ceases menstruation and her estrogen levels decrease, breast atrophy occurs; milk gland tissue atrophies, withers, and disappears, resulting in a breast composed of adipose tissue, superficial fascia, suspensory ligaments, and the skin envelope.

The dimensions and weight of the breast vary widely among women. A small-to-medium-sized breast weighs 500 grams (1.1 pounds) or less, and a large breast can weigh approximately 750 to 1,000 grams (1.7 to 2.2 pounds) or more. The tissue composition ratios of the breast also vary among women. Some women's breasts have varying proportions of glandular tissue than of adipose or connective tissues. The fat-to-connective-tissue ratio determines the density or firmness of the breast. During a woman's life, her breasts change size, shape, and weight due to hormonal changes during puberty, fertility, pregnancy, breastfeeding, and menopause.^{[11][12]}

2.1 Glandular structure

The breast is an apocrine gland that produces milk to feed an infant. The nipple of the breast is surrounded by the areola (nipple-areola complex). The areola has many sebaceous glands, and the skin color varies from pink to dark brown. The basic units of the breast are the terminal duct lobular units (TDLUs), which produce the fatty breast milk. They give the breast its offspring-feeding functions as a mammary gland. They are distributed throughout the body of the breast. Approximately two-thirds of the lactiferous tissue is within 30 mm of the base of the nipple. The terminal lactiferous ducts drain the milk from TDLUs into 4–18 lactiferous ducts, which drain to the nipple. The milk-glands-to-fat ratio is 2:1 in a lactating woman, and 1:1 in a non-lactating woman. In addition to the milk glands, the breast is also composed of connective tissues (collagen, elastin), white fat, and the suspensory Cooper's ligaments. Sensation in the breast is provided by the peripheral nervous system innervation by means of the front (anterior) and side (lateral) cutaneous branches of the fourth-, fifth-, and sixth intercostal nerves. The T-4 nerve (Thoracic spinal nerve 4), which innervates the dermatomic area, supplies sensation to the nipple-areola complex.^[13]

2.2 Lymphatic drainage

Approximately 75% of the lymph from the breast travels to the axillary lymph nodes on the same side of the body, whilst 25% of the lymph travels to the parasternal nodes (beside the sternum bone).^{[8]:116} A small amount of remaining lymph travels to the other breast and to the abdominal lymph nodes. The axillary lymph nodes include the pectoral (chest), subscapular (under the scapula), and humeral (humerus-bone area) lymph-node groups, which drain to the central axillary lymph nodes and to the apical axillary lymph nodes. The lymphatic drainage of the breasts is especially relevant to oncology because breast cancer is common to the mammary gland, and cancer cells can metastasize (break away) from a tumour and be dispersed to other parts of the body by means of the lymphatic system.

2.3 Shape and support

The morphologic variations in the size, shape, volume, tissue density, pectoral locale, and spacing of the breasts determine their natural shape, appearance, and position on a woman's chest. Breast size and other characteristics do not predict the fat-to-milk-gland ratio or the potential for the woman to nurse an infant. The size and the shape of the breasts are influenced by normal-life hormonal changes (thelarche, menstruation, pregnancy, menopause) and medical conditions (e.g. virginal breast hypertrophy).^[14] The shape of the breasts is naturally determined by the support of the suspensory Cooper's



A pregnant woman's breasts

ligaments, the underlying muscle and bone structures of the chest, and by the skin envelope. The suspensory ligaments sustain the breast from the clavicle (collarbone) and the clavico-pectoral fascia (collarbone and chest) by traversing and encompassing the fat and milk-gland tissues. The breast is positioned, affixed to, and supported upon the chest wall, while its shape is established and maintained by the skin envelope. While it has been a common belief that breastfeeding causes breasts to sag,^[13] researchers have found that a woman's breasts sag due to four key factors: cigarette smoking, number of pregnancies, gravity, and weight loss or gain.^[16]

The base of each breast is attached to the chest by the deep fascia over the pectoralis major muscles. The space between the breast and the pectoralis major muscle, called retromammary space, gives mobility to the breast. Some breasts are mounted high upon the chest wall, are of rounded shape, and project almost horizontally from the chest. These features are common to girls and women in the early stages of thelarchic development (the sprouting of the breasts). In the high-breast configuration, the dome-shaped and the cone-shaped breast is affixed to the chest at the base, and weight is evenly distributed over the base area. In the low-breast configuration, a proportion of the breast weight is supported by the chest, against which rests the lower surface of the breast, thus is formed the inframammary fold (IMF). Because the base is deeply affixed to the chest, the weight of the breast is distributed over a greater area. This reduces the weight-bearing strain upon the chest, shoulder, and back muscles that bear the weight of the bust.

The chest (thoracic cavity) progressively slopes outwards from the thoracic inlet (atop the breastbone) and above to the lowest ribs that support the breasts. The inframammary fold, where the lower portion of the breast meets the chest, is an anatomic feature created by the adherence of the breast skin and the underlying connective tissues of the chest; the IMF is the lower-most extent of the anatomic breast. In the course of thelarche, some girls develop breasts the lower skin-envelope of which touches the chest below the IMF, and some girls do not; both breast anatomies are statistically normal morphologic variations of the size and shape of women's breasts.^[17]

2.4 Asymmetry

Up to 25% of women's breasts display a persistent, visible breast asymmetry,^{[18][19]} which is defined as differing in size by at least one cup size. For about five- to ten percent of women, their breasts are substantially different, with the left breast being larger in 62% of cases.^[20] This is due to the left breast's proximity to the heart, a greater number of arteries and veins, and a protective layer of fat surrounding the heart located beneath it.

The most common cause for asymmetric breast density is the common normal variant of asymmetrically distributed breast tissue. Minor asymmetry may be resolved by wearing a padded bra. But severe cases of developmental breast deformity, called "Amazon's Syndrome," may require corrective surgery due to morphological alterations. These can be caused by variations in shape, volume, position of the breasts relative to the inframammary fold, the nipple-areola complex on the chest, or both.^{[21][22]}

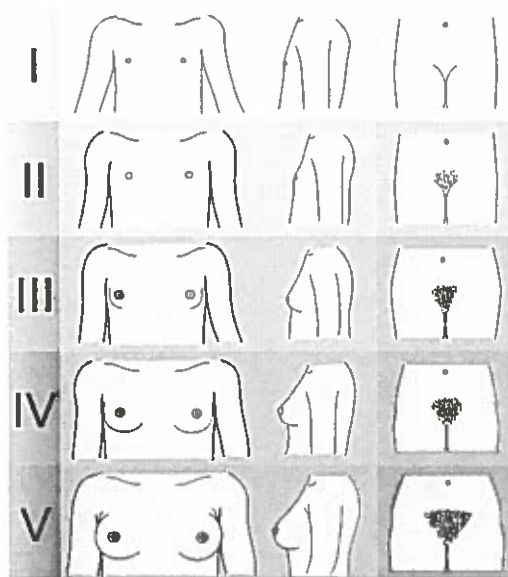
If a woman is uncomfortable with her breasts' asymmetry and the variance is relatively minor, she can minimize the difference with a corrective or padded bra or by the use of gel bra inserts. However, if there is a significant difference in breast size, she should consult a doctor to establish the cause. Breast asymmetry is related to several known risk factors for breast cancer,^[23] but only three percent of mammograms of women with asymmetrical breasts result in a cancer diagnoses.^[24] Types of breast asymmetry include bilateral asymmetric hypertrophy, unilateral hypertrophy with normal contralateral breast, unilateral hypertrophy with amastia or hypoplasia of the contralateral side, unilateral amastia or hypoplasia with normal contralateral breast, asymmetric bilateral hypoplasia, and unilateral mammary ptosis.^[21]

Most surgeons will only perform an augmentation to treat asymmetry if the woman's breasts differ by at least one cup size. One option is a minimally invasive procedure known as platelet injection fat transfer, which transfers fat cells from the woman's thighs to her smaller breast. More invasive procedures include reduction or augmentation mammoplasty, such as mastopexy, breast reduction plasty, or breast augmentation. Depending on the nature of the asymmetry, it may be necessary to operate on one or both breasts.^{[20][21]}

3 Development

Main article: Breast development

The morphological structure of the human breast is identical in males and females until puberty. For pubescent girls in thelarche (the breast-development stage), the female sex hormones (principally estrogens) in conjunction with growth hormone promote the sprouting, growth,



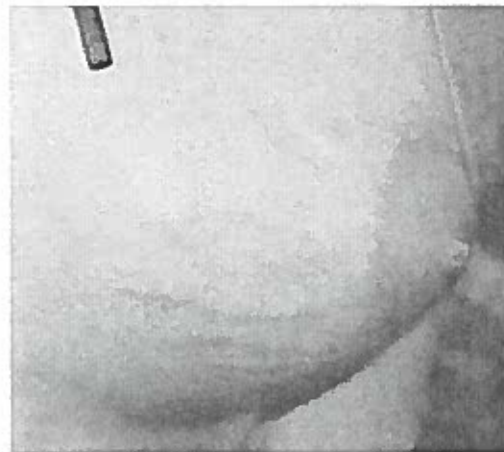
The Tanner Scale indicates the five development stages of the secondary sex characteristics (breasts and pubic hair) of girls and women.

and development of the breasts. During this time, the mammary glands grow in size and volume and begin resting on the chest. These development stages of secondary sex characteristics (breasts, pubic hair, etc.) are illustrated in the five-stage Tanner Scale.^[25]

During thelarche, the developing breasts are sometimes of unequal size, and usually the left breast is slightly larger. This condition of asymmetry is transitory and statistically normal in female physical and sexual development.^[26] Abnormal breast development is manifested itself either as overdevelopment (e.g., virginal breast hypertrophy, macromastia) or as underdevelopment (e.g., tuberous breast deformity, micromastia) in girls and women. In boys and men it is manifested as gynecomastia (woman's breasts), the consequence of a biochemical imbalance between the normal levels of estrogen and testosterone in the male body.^[27]

Approximately two years after the onset of puberty (a girl's first menstrual cycle), estrogen and growth hormone stimulate the development and growth of the glandular fat and suspensory tissues that compose the breast. This continues for approximately four years until the final shape of the breast (size, volume, density) is established at about the age of 21. Mammoplasia (breast enlargement) in girls begins at puberty, unlike all other primates in which breasts enlarge only during lactation.^[9]

The breasts are principally composed of adipose, glandular, and connective tissues.^[28] Because these tissues have hormone receptors,^{[28][29]} their sizes and volumes fluctuate according to the hormonal changes particular to thelarche (sprouting of breasts), menstruation (egg production), pregnancy (reproduction), lactation (feeding



On the skin envelope of the breast, stretch marks may indicate the relative size increments and decrements occurred during the life of the woman.

of offspring), and menopause (end of menstruation).

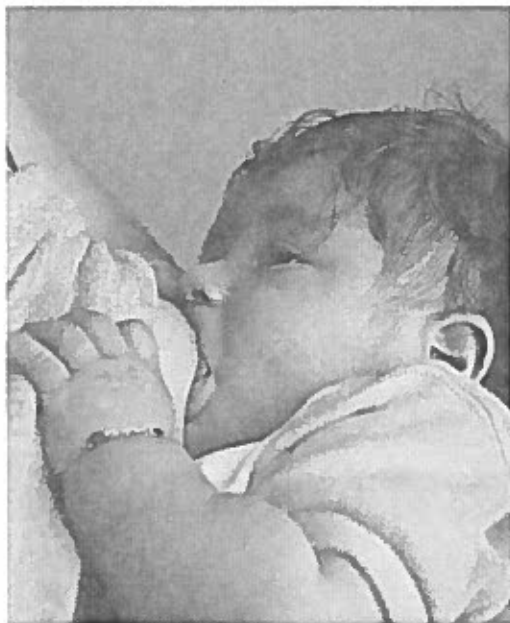
During the menstrual cycle, the breasts are enlarged by premenstrual water retention and temporary growth.^[30] During pregnancy, the breasts become enlarged and denser (firmer) because of the prolactin-caused organ hypertrophy. This begins the production of breast milk, increases the size of the nipples, and darkens the skin color of the nipple-areola complex. These changes continue during the lactation and breastfeeding periods. Afterwards, the breasts generally revert to their pre-pregnancy size, shape, and volume, but might show stretch marks.

At menopause, breast atrophy occurs. The breasts can decrease in size when the levels of circulating estrogen decline. The adipose tissue and milk glands also begin to wither. The breasts can also become enlarged from adverse side effects of combined oral contraceptive pills. The size of the breasts can also increase and decrease in response to weight fluctuations. Physical changes to the breasts are often recorded in the stretch marks of the skin envelope; they can serve as historical indicators of the increments and the decrements of the size and volume of a woman's breasts throughout the course of her life.

4 Physiology

Main article: Breastfeeding

The primary function of the breasts, as mammary glands, is the feeding and nourishing of an infant with breast milk during the maternal lactation period. The round shape of the breast helps to limit the loss of maternal body heat. Milk production depends upon a higher-temperature environment for the milk-production function of the mammary gland tissues, the lactiferous ducts. Regarding the shape of the breast, the study *The Evolution of the Hu-*



The functional breast nourishing an infant girl.



A woman breastfeeding a baby.

man Breast (2001) proposed that the rounded shape of a woman's breast evolved to prevent the sucking infant offspring from suffocating while feeding at the teat; that is, because of the human infant's small jaw, which did not project from the face to reach the nipple, he or she might block the nostrils against the mother's breast if it were of a flatter form (cf. chimpanzee). Theoretically, as the human jaw receded into the face, the woman's body compensated with round breasts.^[31]

Lactation unrelated to pregnancy can occur as galactorrhea (spontaneous milk flow) from the adverse effects of drugs (e.g. antipsychotic medications),

extreme physical stress, or endocrine disorders. In a newborn infant, the capability of lactation is a consequence of the mother's circulating hormones (prolactin, oxytocin, etc.) in his or her blood stream, which were introduced by the shared circulatory system of the placenta. In men, the mammary glands are also present in the body, but normally remain undeveloped because of the hormone testosterone, however, when male lactation occurs, it is considered a pathological symptom of a disorder of the pituitary gland.

5 Aging

Main article: Ptosis (breasts)

Breast ptosis, or sagging of the breasts, is a normal



The seven stages of breast ptosis.

consequence of aging^[32] where the breast tissue droops lower on the chest and the nipple points downward.^[33] Researchers have found that ptosis is influenced by several key factors: greater age, higher body mass index, larger bra cup size, history of significant weight loss (>50 lbs), number of pregnancies, and history of cigarette smoking.^{[16][34][35]} It is not caused, as commonly believed by many women and medical practitioners, by breastfeeding.^[15]

Plastic surgeons categorize ptosis by evaluating the position of the nipple relative to the inframammary crease (where the underside of the breast meets the chest wall). This is determined by measuring from the center of the nipple to the sternal notch (at the top of the breast bone) to gauge how far the nipple has fallen. The standard anthropometric measurement for young women is 21 centimetres (8.3 in). This measurement is used to assess both breast ptosis and breast symmetry. The surgeon will assess the breast's angle of projection. The apex of the breast, which includes the nipple, can have a flat angle of projection (180 degrees) or acute angle of projection (greater than 180 degrees). The apex rarely has an angle greater than 60 degrees. The angle of the breast apex is partly determined by the tautness of the suspensory Cooper's ligaments. For example, when a woman lies on her back, the angle of the breast apex becomes a flat, obtuse angle (less than 180 degrees) while the base-to-length ratio of the breast ranges from 0.5 to 1.0.^[32]

6 Clinical significance

Main article: Breast disease

The breast is susceptible to numerous benign and malignant conditions. The most frequent benign conditions are puerperal mastitis, fibrocystic breast changes and mastalgia. Breast cancer is the most common cause of cancer death among women^[36] and it is one of the leading causes of death among women. Factors that appear to be implicated in decreasing the risk of breast cancer are regular breast examinations by health care professionals, regular mammograms, self-examination of breasts, healthy diet, and exercise to decrease excess body fat.^[37]

7 Society and culture

7.1 Art history



A Cretan snake goddess from the Minoan civilization, c. 1600 BC.

In European pre-historic societies, sculptures of female figures with pronounced or highly exaggerated breasts were common. A typical example is the so-called Venus of Willendorf, one of many Paleolithic Venus figurines with ample hips and bosom. Artifacts such as bowls, rock carvings and sacred statues with breasts have been recorded from 15,000 BC up to late antiquity all across Europe, North Africa and the Middle East.

Many female deities representing love and fertility were

associated with breasts and breast milk. Figures of the Phoenician goddess Astarte were represented as pillars studded with breasts. Isis, an Egyptian goddess who represented, among many other things, ideal motherhood, was often portrayed as suckling pharaohs, thereby confirming their divine status as rulers. Even certain male deities representing regeneration and fertility were occasionally depicted with breast-like appendices, such as the river god Hapy who was considered to be responsible for the annual overflowing of the Nile.

Female breasts were also prominent in the Minoan civilization in the form of the famous Snake Goddess statuettes. In Ancient Greece there were several cults worshipping the "Kourotrophos", the suckling mother, represented by goddesses such as Gaia, Hera and Artemis. The worship of deities symbolized by the female breast in Greece became less common during the first millennium. The popular adoration of female goddesses decreased significantly during the rise of the Greek city states, a legacy which was passed on to the later Roman Empire.^[38]



An 1825 oil painting of "Tetappa, a Native Female of the Sandwich Islands", by Robert Dampier.

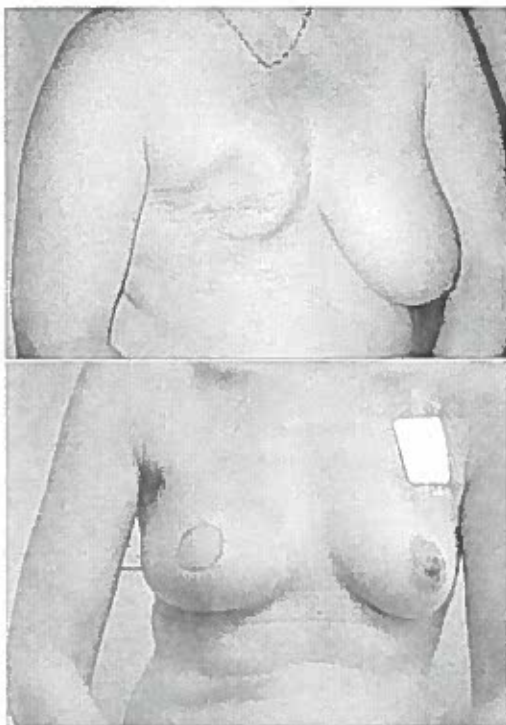
During the middle of the first millennium BC, Greek culture experienced a gradual change in the perception of female breasts. Women in art were covered in clothing from the neck down, including female goddesses like Athena, the patron of Athens who represented heroic endeavor. There were exceptions: Aphrodite, the goddess of love, was more frequently portrayed fully nude, though in postures that were intended to portray shyness or modesty, a portrayal that has been compared to modern pin ups by historian Marilyn Yalom.^[39] Although nude men were depicted standing upright, most depictions of female nudity in Greek art occurred "usually with drapery near at hand and with a forward-bending, self-protecting

7.2 Body image

7

posture”.^[40] A popular legend at the time was of the Amazons, a tribe of fierce female warriors who socialized with men only for procreation and even removed one breast to become better warriors (the idea being that the right breast would interfere with the operation of a bow and arrow). The legend was a popular motif in art during Greek and Roman antiquity and served as an antithetical cautionary tale.

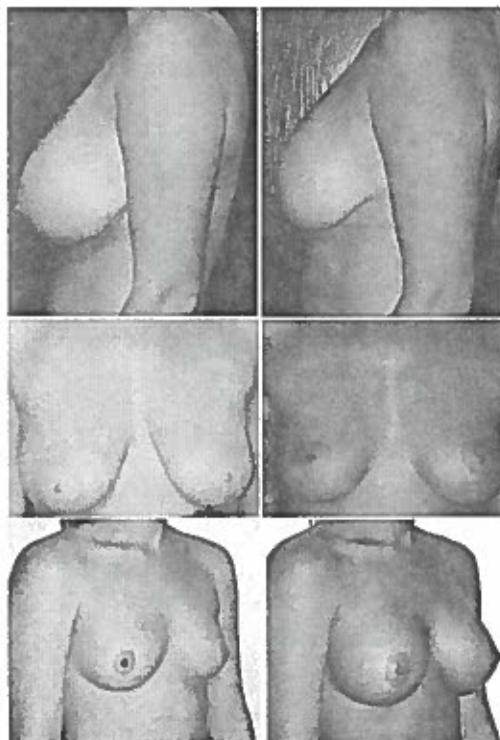
7.2 Body image



Top: conventional mastectomy. Bottom: Skin sparing mastectomy and latissimus dorsi myocutaneous flap reconstruction, prior to nipple reconstruction and tattooing.

Many women regard their breasts as important to their sexual attractiveness, as a sign of femininity that is important to their sense of self. Due to this, when a woman considers her breasts deficient in some respect, she might choose to undergo a plastic surgery procedure to enhance them, either to have them augmented or to have them reduced, or to have them reconstructed if she suffered a deformative disease, such as breast cancer.^[41] After mastectomy, the reconstruction of the breast or breasts is done with breast implants or autologous tissue transfer, using fat and tissues from the abdomen, which is performed with a TRAM flap or with a back (latissimus muscle flap). Breast reduction surgery is a procedure that involves removing excess breast tissue, fat, and skin, and the repositioning of the nipple-areola complex.

Cosmetic improvement procedures include breast lift



Pre-operative (left) and post-operative (right) aspects of cosmetic surgery procedures: reduction mammoplasty (top), breast lift (center), breast augmentation with breast implants (bottom).

(mastopexy), breast augmentation with implants, and combination procedures; the two types of available breast implants are models filled with silicone gel, and models filled with saline solution. These types of breast surgery can also repair inverted nipples by releasing milk duct tissues that have become tethered. Furthermore, in the case of the obese woman, a breast lift (mastopexy) procedure, with or without a breast volume reduction, can be part of an upper-body lift and contouring for the woman who has undergone massive body weight loss.

Surgery of the breast presents the health risk of interfering with the ability to breast-feed an infant child, and might include consequences such as altered sensation in the nipple-areola complex, interference with mammography (breast x-rays images) when there are breast implants present in the breasts. Regarding breast-feeding capability after breast reduction surgery, studies reported that women who underwent breast reduction can retain the ability to nurse an infant child, when compared to women in a control group who underwent breast surgery using a modern pedicle surgical technique.^{[42][43][44][45][46][47][48]} Plastic surgery organizations generally discourage elective cosmetic breast augmentation surgery for teen-aged girls, because, at that age, the volume of the breast tissues (milk glands and fat) can continue to grow as the girl matures to womanhood. Breast reduction surgery for teen-aged girls, however, is

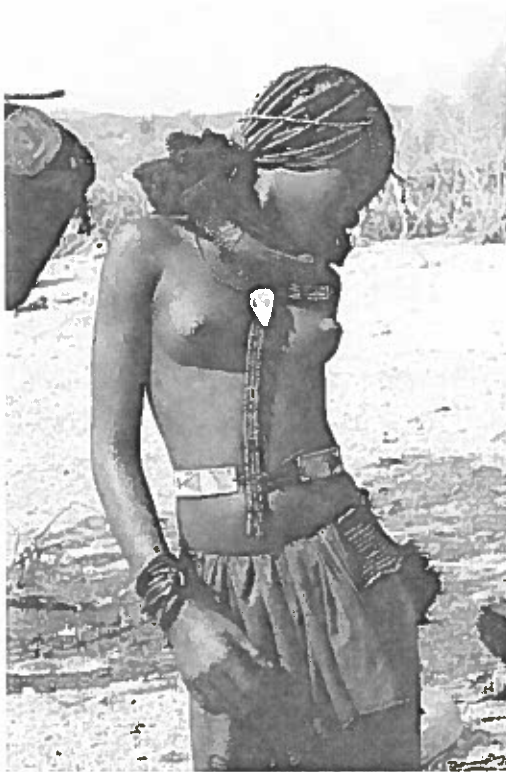
a matter handled according to the particulars of the case of hypoplasia. (see: breast hypertrophy.)

Other potential means of breast enlargement also exist, such as hormonal breast enhancement.^{[49][50]}

7.3 Clothing

See also: Brassiere, Cleavage (breasts), Toplessness, Modesty, Naturism, and Exhibitionism

Because breasts are mostly fatty tissue, their shape can



As is customary in her culture, a bare-breasted Himba woman of northern Namibia wears a traditional headdress and skirt.

within limits be molded by clothing, such as foundation garments. Bras are commonly worn by about 90% of Western women,^{[51][52][53]} and are often worn for support.^[54] The social norm in most Western cultures is to cover breasts in public, though the extent of coverage varies depending on the social context. Some religions ascribe a special status to the female breast, either in formal teachings or through symbolism. Islam forbids women from exposing their breasts in public.

Many cultures, including Western cultures in North America, associate breasts with sexuality and tend to regard bare breasts as immodest or indecent. In some cultures, like the Himba in northern Namibia, bare-breasted women are normal, while a thigh is highly sexualised and not exposed in public. In a few Western countries and

regions female toplessness at a beach is acceptable, although it may not be acceptable in the town center. In some jurisdictions where women can legally expose their breasts, the nipples must be covered (e.g., with "pasties").

In the United States, women who breast-feed in public can receive negative attention. There have been instances where women have been asked to leave public venues. In New York, the topfreedom equality movement helped to bring a case, *People v. Santorelli* (1992), to the New York Court of Appeals. They ruled that New York's indecent exposure laws did not apply to a bare-breasted woman. Other (gender equality) efforts succeeded in most of Canada in the 1990s. Bare-breasted women are legal and culturally acceptable at public beaches in Australia and much of Europe. Filmmaker Lina Esco made a film entitled *Free The Nipple*, which is about "...laws against female toplessness or restrictions on images of female, but not male, nipples", which Esco states is an example of sexism in society.^[55]

7.4 Sexual characteristic

See also: Mammary intercourse, Breast fetishism, and Stimulation of nipples

In some cultures, breasts play a role in human sexual activity. In Western culture, breasts have a "...hallowed sexual status, arguably more fetishized than either sex's genitalia".^[56] Breasts and especially the nipples are among the various human erogenous zones. They are sensitive to the touch as they have many nerve endings; and it is common to press or massage them with hands or orally before or during sexual activity. Some women can achieve an orgasm from such activities.

Research suggests that the sensations are genital orgasms caused by nipple stimulation, and may also be directly linked to "the genital area of the brain".^{[57][58]} Sensation from the nipples travels to the same part of the brain as sensations from the vagina, clitoris and cervix. Nipple stimulation may trigger uterine contractions, which then produce a sensation in the genital area of the brain.^[58] In the ancient Indian work the *Kama Sutra*, light scratching of the breasts with nails and biting with teeth are considered erotic.^[59] During sexual arousal, breast size increases, venous patterns across the breasts become more visible, and nipples harden. Compared to other primates, human breasts are proportionately large throughout adult females' lives. Some writers have suggested that they may have evolved as a visual signal of sexual maturity and fertility.^[60]

Many people regard the female human body, of which breasts are an important aspect, to be aesthetically pleasing, as well as erotic. Research conducted at the Victoria University of Wellington showed that breasts are often the first thing men look at, and for a longer time than other body parts.^[61] The writers of the study had initially

speculated that the reason for this is due to endocrinology with larger breasts indicating higher levels of estrogen and a sign of greater fertility,^{[61][62]} but the researchers said that “Men may be looking more often at the breasts because they are simply aesthetically pleasing, regardless of the size.”^[61]

Many people regard bare female breasts to be erotic, and they can elicit heightened sexual desires in men in many cultures. Some people show a sexual interest in female breasts distinct from that of the person, which may be regarded as a breast fetish.^[63] A number of Western fashions include clothing which accentuate the breasts, such as the use of push-up bras and decollete (plunging neckline) gowns and blouses which show cleavage. While U.S. culture prefers breasts that are youthful and upright, some cultures venerate women with drooping breasts, indicating mothering and the wisdom of experience.^[64]

7.5 Anthropomorphic geography

Main article: Breast-shaped hill

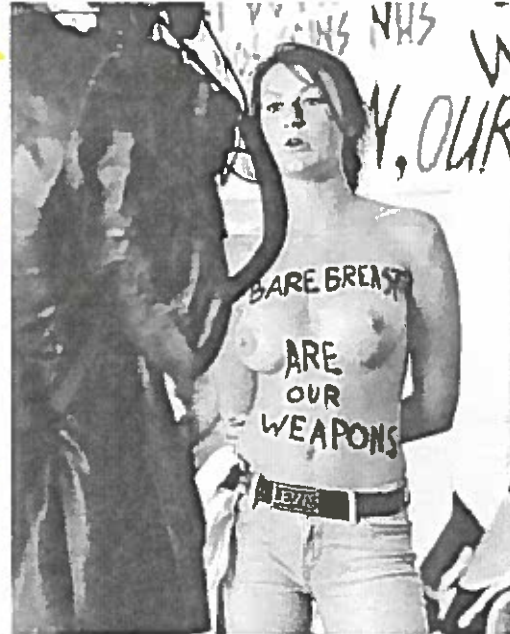
There are many mountains named after the breast because they resemble it in appearance and so are objects of religious and ancestral veneration as a fertility symbol and of well-being. In Asia, there was “Breast Mountain”, which had a cave where the Buddhist monk Bodhidharma (Da Mo) spent much time in meditation.^[65] Other such breast mountains are Mount Elgon on the Uganda-Kenya border, Beinn Chiochan and the Maiden Paps in Scotland, the “Bundok ng Susong Dalaga” (Maiden’s breast mountains) in Talim Island, Philippines, the twin hills known as the Paps of Anu (*Dá Chích Anann* or “the breasts of Anu”), near Killarney in Ireland, the 2,086 m high *Tetica de Bucares* or “La Tetica” in the Sierra de Los Filabres, Spain, and Khao Nom Sao in Thailand, Cerro Las Tetas in Puerto Rico and the Breasts of Aphrodite in Mykonos, among many others. In the United States, the Teton Range is named after the French word for “breast”.^[66]

7.6 Symbolism

In Christian iconography, some works of art depict women with their breasts in their hands or on a platter, signifying that they died as a martyr by having their breasts severed; one example of this is Saint Agatha of Sicily.^[67]

7.7 In political activism

Femen is a feminist activist group which uses topless protests as part of their campaigns against sex tourism^{[68][69]} religious institutions,^[70] sexism, homophobia^[71] and to “defend [women’s] right to abortion”.^[72] Femen activists have been regularly detained by police in response to their protests.^{[73][72]}



A member of feminist activist group Femen doing a topless protest.

7.8 In comedy

“There is a long history” of female breasts being used by comedians as a subject for “comedy fodder” (e.g., British comic Benny Hill’s burlesque/slapstick routines).^[74]

8 See also

- Female sexual ornaments
- Intimate part
- Milk line

9 References

Notes

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