Cosmetic Surgery: Past, Present and Future
Cosmetic Surgery is a Branch of Plastic Surgery

- Plastic surgeons repair congenital malformations (e.g., cleft lip and palate), disfiguring wounds, animal bites, burn injuries, and perform reconstructions after surgeries for chronic and/or malignant conditions.

- Cosmetic surgery is largely elective and designed to augment “normal” appearance.
Plastic Surgery Charities

- Operation Smile – correcting congenital defects in patients in the developing world

- Face−to−Face: The National Domestic Violence Project (sponsored by the Am Acad of Facial Plast and Reconstsr Surgeons) – for domestic violence victims
History of Reconstructive and Cosmetic Surgery

- **600 BC:** Hindu surgeon reconstructs nose using a piece of cheek
- **By 1000 AD:** Rhinoplasty common
  - Due to common practice of cutting off noses and upper lips of enemies
- **16th Century:** Gaspare Tagliacozzi ("the father of plastic surgery") reconstructs noses slashed off during duels by transferring flaps of upper arm skin
  - Also used to reconstruct "saddle nose" deformity of congenital syphilis
History of Reconstructive and Cosmetic Surgery

- 1798: Term plastic surgery (from the Greek "plastikos," fit for molding), coined by Pierre Desault
- 19th century: developments in anesthesia and antisepsis make plastic surgery safer, techniques improve
- Skills developed during the World Wars I and II applied to victims of birth defects and automobile and industrial accidents
History of Reconstructive and Cosmetic Surgery

- Eugenics movement, post–WWII prosperity, rise of movies/TV all increase popularity of cosmetic surgery

- 1923: first modern rhinoplasty

- 1931: first public face lift
History of Reconstructive and Cosmetic Surgery

- 1950s: first hair transplants

- 1990s onward: more procedures carried out in doctors’ offices and free-standing surgical centers

- 2000s: Aesthetic medicine, medi-spas, luxury clinics
Motivations for Cosmetic Surgery

- External: avoidance of ethnic prejudice; fear of age discrimination; coercion by spouse/parent/boss
- Internal: desire to diminish unpleasant feelings like depression, shame, or social anxiety; to alter a specific feature they dislike; desire for a more youthful, healthy look that signals fertility (women); interest in developing a strong, powerful look that may facilitate career advancement
Arguments for Cosmetic Surgery

- Aging as a physical illness
- Aging as a mental illness
- Substitution of happiness for health as the goal of medical treatment
- A business service provided to those who desire it, can pay, and accept the risks involved
Representations of Cosmetic Surgery in Women’s Magazines

- 2008 study
- Only 48% of articles in magazines like Cosmo and O, The Oprah Magazine discuss the impact of cosmetic surgery on emotional health
- Most articles link cosmetic surgery with enhanced emotional well-being, regardless of the patient’s pre-existing emotional health
Cosmetic Surgery

- 91% of patients women
- 84% white
- 2/3 report family incomes < $50,000
- More popular on West Coast
Cosmetic Surgery

- 34% of patients have multiple procedures done at the same time
  - “Drastic plastic”

- 40% of patients are repeat patients
Cosmetic Surgery

- Complications rare but possible
  - E.g., infections, bleeding, hyponatremia, allergic reactions, anesthetic complications

- Revision rates as high as 10%
  - E.g., face lift lasts 10 yrs
Cosmetic Surgery
2008 prices – Do not include anesthesia, OR facilities, other costs

- 10.3 million procedures ($11.8 billion):
  - 2.5 million botox procedures
  - 1.3 million hyaluronic acid fillers
  - 592,000 chemical peels
  - 897,000 microdermabrasions
  - 906,000 laser hair removals
  - 590,000 vein sclerotherapies (strippings)
Cosmetic Surgery
2008 prices – Do not include anesthesia, OR facilities, other costs

- 11.7 million procedures:
  - 341,000 liposuctions: $2,874
  - 152,000 rhinoplasties: $4,369
  - 356,000 breast augmentations: $3,600–$3,900
  - 195,000 blepharoplasties (eyelid reconstructions): $2,921
  - 147,000 abdominoplasties (“tummy tucks”): $5,470
  - 140,000 breast reductions: $5,630
Cosmetic Surgery: Procedures

- Face lift
- Upper arm lift
- Buttock/thigh lift
- Abdominoplasty
- Reduction mammoplasty
- Augmentation Mammoplasty
- Liposuction
Face Lift
Face Lift

Diagram showing anatomical structures related to Face Lift surgery.
Upper Body Lift

Before

After

Courtesy of Dr. Geoffrey Leber / bevhillsdoc.com
Lower Body Lift
Abdominoplasty

A. Incision

B. Skin and Fat

C. External oblique

D. Sutures
Abdominoplasty

- Abdominal fat and stretch marks
- Incisions
- Complete abdominoplasty procedure
- Abdominal muscles are tightened
- New hole for navel
- Excess skin is pulled down and trimmed

Before

After
Reduction Mammaplasty

Groove from bra strap

Disproportionately large breast

Reduction mammaplasty

Keyhole incision

Excess tissue trimmed

Before

After healing
Augmentation Mammoplasty

Cut-section view

Pectoralis muscle
Breast tissue

Areola

Incision
Augmentation Mammoplasty
Liposuction

Problem areas that can be addressed with liposuction:
Most popular procedures for women (2008 stats)

- Breast augmentation: 355,671
- Liposuction: 309,692
- Blepharoplasty: 166,426
- Abdominoplasty: 143,005
- Breast Reduction: 139,926
Most popular procedures for men (2008 stats)

- Liposuction: 31,453
- Rhinoplasty: 30,174
- Eyelid surgery: 28,678
- Breast reduction: 19,124
- Hair transplantation: 18,062
Other popular procedures for men

- Scalp reduction (for male pattern baldness)
- Cheek implants
- Ear reshaping
- Pectoral implants
- Chin augmentation (implants)
- Calf implants
The Adonis Complex

- 38% of men want bigger pectorals; 34% of women want bigger breasts
- Each year, men spend over $2 billion on health club memberships and $2 billion for home exercise equipment
Anabolic Steroid Abuse

- Supplement industry booming
- 3 million American men have swallowed or injected anabolic steroids since they became widely available in the 1960s
- 2.8% of current high school males have used (50% increase over last 4 years); rates among girls may be even higher
  - Use associated with violent behavior
Penile Size and Penile Reconstructive Surgery

- Ancient Greeks believed small penis was superior
- Later, phallic identity and phallocentrism increasingly popular – “penis is central to man’s identity, virility”
- No correlation between shoe size and penile length
Penile Size and Penile Reconstructive Surgery

- 1971: First penile augmentation surgery
- Girth enhancements with fat injections, Alloderm (derived from human skin)
- Penile lengthening procedures
- Complications: scar, keloid, penile lumps, sexual dysfunction, further penile shortening
- Augmentation procedures not sanctioned by American Urological Association
Cosmetic Surgery Odds and Ends

- Most common cosmetic procedure in Asia = eyelid surgery, to create a crease above the eye (up to 60% of Korean women)
- City in America with the most plastic surgeons per capita = San Francisco
- Country with the most cosmetic surgery operations per capita = Brazil
Reconstructive Surgery – The Latest

- Hand transplants
- Face transplants
  - 2005: first procedure on female dog-mauling victim
  - 15 hour procedure (including 5 hours for harvest); involves multidisciplinary team
  - Ethical issues
- Lifelong immunosuppression required
Cosmetic Neurology

- Interventions to enhance the cognitive and emotional brain functions of the neurologically non-diseased
- Currently being pursued by the pharmaceutical industry (via drugs to increase intelligence) and the military (via interventions to create more effective soldiers)
Cosmetic Military Neurology

- “Go–go pills" (amphetamines) used by US soldiers in WW II
- Modafinil (wakefulness–promoting agent) improves pilot alertness and performance in helicopter flight simulations.
- Many military pilots today rely on caffeine and other stimulants, including amphetamines, to complete missions
Cosmetic Neurology

- Raises concerns about:
  - Distributive justice
  - Informed consent
    - In the military setting or in children
Cosmetic Surgery – The Fringes

- The Jewel Eye: implantation of tiny platinum jewels into conjunctiva (20 minutes, $3900)
  - Am Acad Ophth warns not proven safe
- Umbilicoplasty, lengthening/shortening toes to improve “toe cleavage,” fracturing and resetting jaw to alter smile, forehead implants
Cosmetic Surgery – The Fringes

- Genitalia redesign: foreskin restoration, mechanical and cosmetic phalloplasty, vaginal tightening/alteration of angle/dimensions, partial labial excisions, fat injection into labia
  - 4500 procedures in 2007
  - ACOG: “safety and effectiveness have not been documented”
Cosmetic Surgery – The Fringes

- The Jade Lady Membrane Man–Made Hymen
  - Marketed in China
  - Blood–colored fluid released during sex
- Furries: lovers of anthropomorphized animals
  - Surgical enhancements
  - Conventions
Cosmetic Surgery – The Fringes

- Deliberate amputations of body parts
  - Apotemnophilia – attraction to the idea of being an amputee (a paraphilia)
  - Not to be confused with acrotomophiliacs – sexually attracted to amputees
- Wings, chimeras, and stem-cell cosmesis
Cosmetic Surgery – The Fringes

- Sarah Burge (born 1959) holds world plastic surgery record:
  - Over 100 procedures
  - Cost = $850,000

- Celebrity plastic surgery:
  - Michael Jackson, Pamela Lee, Meg Ryan, Cher (?), many others
Prime Time Cosmetic Surgery

- ABC TV’s “Extreme Makeover”
- Fox TV’s “The Swan”
- MTV’s “I Want a New Face”
Pets

- Neuticles (artificial pet testicles)
  - “To boost your pet’s self-image”
  - Over 250,000 sold through mid 2008
  - No FDA-approved artificial testes for humans, so cancer victims buy and have plastic surgeon install
Pets

- We value our pets, but...
  - In 2008, almost 1200 people purchased stem cell surgery for their dogs
  - Pet cloning
  - Pet jewelry
  - Over $3 billion pet pharmaceutical market
Conclusions

- Body modification common today and throughout history
- Risks involved
- Obesity a major public health problem
- The body modification and weight loss industries marred by hucksterism, false claims and conflicts of interest
Conclusions

- Beauty has different definitions in different times and in different cultures
- The health professions can play a constructive role in supporting safe and healthy behaviors and promoting realistic ideals of beauty
- More education needed at all levels
References