Troublesome Tattoos, Problematic Piercings, and Other Body Modification Complications

Barbie Doll Tattoos

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Tattoo’s Aren’t New.....

- Practiced worldwide
- “Tattoo” come from the Tahitian word “ta-tau” which means to mark.
- Body modification skyrocketed in the last 10 years.
- Include religion, fashion, eroticism, conformism, or subcultural identification.
The Stats

- **Tattoos**: 36% of aged 25-29 have 1 or more tattoos
- **Piercing**:
  - 10.2% 12-15 yr old
  - 46.7% 16-20 yr old
  - 26.7% 21-25 yr old

Tattoos

- Regionally-West (20%)
- Democrats - 18%
- Republicans-14%
- Independents-12%
- Equal males (16%) and females (15%)

Tattooing in Prehistoric Times

- Eurasian practice since Neolithic times
- Otzi the Iceman, 3300 BC, 57 tattoos
- The right arm of a mummy discovered in Russia, tattoo made more than 2,500 years ago

Tattooing

- Applied by injecting the color pigments into the skin using a solid, round-tip needle attached to a motorized instrument that holds up to 14 needles attached to the pigments. (50-3000/min)
- Red Cross prohibits donating blood for 12 months.
Tattooing

- Depending upon the complexity of design, the process takes anywhere from fifteen minutes to several hours or sometimes months to complete.
- Most common allergic reaction: red & yellow dyes, anytime after inking.
- Increase photosensitivity

Tattoos & MRI

- Tattoo pigments may contain heavy metals and iron
- Conductors during MRI

Burning sensation and intense pain
- Oscillations of the gradients or
- Radiofrequency induced electrical currents
- Heating raises intracellular water temperature in the skin, resulting in a burn

Conductors during MRI
- Ink composition often unknown:
  - Pigments are not regulated by the government
  - International suppliers rarely produce ingredient sheets
- Tattoo artists mix their own colors
- Some use printers ink or automobile paint
Tattoos & MRI

- Potential burn with circular pattern, in the form of an RF pick-up loop.
- TX:
  - Cool compresses or ice packs over tattoos.

Second-degree burns. Black thunderbolts have multiple white areas, which were raised and swollen 24 hr earlier. Red areas outlining thunderbolts are normal, and skin with Chinese symbol is normal.

Tattoo Regulation

- Tattoo studios were still illegal in several states: VT, MA, OK until Nov. 2006
- Experienced artists may charge $150-$200/hour.

Tattoo Regulation

- No national regulation.
- Some states let local city and county decide.
- Most artists are unlicensed & have learned via informal apprenticeship.
- No formal training in anatomy, infection control or universal precautions.

Certification

- Association of Professional Piercers (APP)
- Alliance of Professional Tattooists (APT)
Tattoo Regulation

- Check your local laws-city, state, and county. You can’t get a tattoo:
  - If you are under 18
  - On certain body parts
  - If you are drunk
  - Of offensive or hateful words or images

Tattoo Art

The Risks: Infection

- HBV, HCV, HIV, Pseudomonas, staph, MRSA, tetanus, syphilis.
- Many MRSA outbreaks unlicensed artists.
Infection Risks

- A study of 766 college students:
  - Infection-45%
  - Local skin rxn-39%
  - 2 cases of Hepatitis

- Consider infective endocarditis in a febrile pt without a source and a recent tattoo:
  - MRSA, MSSA, S. epi, strep viridans, haemophilus, and neisseria

Outbreak Mycobacterium chelonae Infection Associated with Tattoo Ink

- Outbreak in Rochester NY in 19 patrons
- Isolated from premixed ink (DNA sequencing) manufactured in Arizona.
- Not from practices of the tattoo parlor.

Ink Rubbing

Originated in Africa & New Guinea as part of tribal rituals.
Trend began in SF about 10 years ago.

Scarification
Scarification

- **Branding**: pattern burned using an electrocautery knife
- **Scarring**: scalpel to remove the outer layer of tissue
- Chemical burn
- Tattoo gun (without ink)

Outcome of the design is based solely on how well the body scars.

Legal in California, but regulations for shops vary by county or city.
Piercing

Dermal Anchors
World's Record for most Permanent Piercings
- Ms Elaine Davidson of Scotland
- 6,725 piercings
  - 500 piercings in genitalia
  - 192 around her head and face

World's Record for Most Temporary Body Piercing
- Brent Moffatt of Winnipeg, Canada
- Guinness World Records for body piercing with syringe needles

World's Record for Most Temporary Body Piercing
- >4,000 16 gauge needles in 4 attempts
Body Piercing Complications

- Survey of 225 adolescents at urban hospital:
  - Piercing infection - 74%
  - Bleeding - 30%
  - Allergic reaction - 26%
  - Keloids - 19%

Ear Piercing Complications

- Largely avascular cartilage → poor healing and more serious infection.
- Pseudomonas common infection
- Tx: Cipro


Ear Piercing Complications


Top 3 Reasons to Have Your Tongue Pierced

1. It’s cool.
2. Parents hate it.
3. Everybody’s doing it.
Top 7 Reasons NOT To Have Your Tongue Pierced:

1. Chipped or fracture front teeth

2. Gum Surgery (Gingival recession)

Gingival Recession

- Gingival recession on teeth opposite stud in 68% compared to 4% in controls.

3. Aspiration

4. Blood borne infections
   - Hepatitis
   - HIV

Top 7 Reasons NOT To Have Your Tongue Pierced:

5. Losing blood - possibly lots of it.

6. Lingering Pain
Top 7 Reasons NOT To:

7. Infection and, just possibly, death

Haemophilus aphrophilus Endocarditis after Tongue Piercing, Emerging Inf. Disease, Aug (8) 2002

Body Piercing Complications

- Systemic infections:
  - Tetanus
  - Acute post-streptococcal glomerulonephritis
  - Streptococcal septicemia
  - Staph toxic shock syndrome
  - Pseudomonal abscesses

Top 7 Reasons NOT To:

- Ludwig’s Angina
Piercing Lacerations

- Earlobe is most common.
- Lacerations may be sutured as any laceration.

Genital Piercing 101

Male Genital Piercings

- Prince Albert (PA): one of the most common male genital piercings
- The ring comes out of the urethra.

Male Genital Piercings

- Ampallang: from tribe in Borneo.
- Rite of passage: placement of the Palang ("cross bar") horizontally through the head of the penis above the urethra.
Male Genital Piercings

- **Apadravya**: Vertical placement of a bar through the penis head & urethra.
- **Frenum**: underside of the penis, through the surface tissue, not through the shaft itself.

Problems with Male Piercing

- **Paraphimosis**:
  - Delayed tx → tissue ischemia → gangrene → autoamputation of the distal penis.
- Urethral injuries
- Infections
- Prolonged priapism
- Recurrent condyloma acuminata

Male Genital Piercings

- **Hafada**: scrotum
- **Dydoe**: piercing through the rim of the glans.

Gangrene Infection
Female Piercings

- Labia piercing can be placed either through minora or majora
- Chastity devices with locks that occlude the vagina

Princess Albertina

- Analogous to the male Prince Albert
- Ring enters the urethra and exits through the vagina
- Increase risk of UTI

Complications

- Vaginal Lacerations
- STD
- UTI

Patient Education

- Genital piercing: remind patient of need for condom use with any sexual contact b/c of increased STD’s, but be aware that condoms may be torn by body jewelry.
Body Piercing

Body Piercing Jewelry Removal

Important Issues:
- Tongue jewelry and intubation
- Genital piercing and childbirth
- Nipple and chest jewelry and defibrillation
- Overlying jewelry and trauma films

Body Piercing Jewelry Removal

- The bead is attached to one side of the ring.
- To remove, simply twist the ring open. Grasp the ring on each side of the bead, pull gently.
- Push one end away from you and pull the other end toward you to open the ring like a spiral.

Body Piercing Jewelry Removal

- Barbell studs
- Labret studs
- Captive bead rings

Bead Ring
Body Piercing Jewelry Removal

- The bead is held in by the tension of the ring.
- Gently pull the ring and bead in opposite directions and the bead should snap out of the ring. Twist the ring a little (as in opening a bead ring) and rotate the jewelry to remove the ring.
- Ring Expanding Pliers or External Snap Ring Pliers can be used to spread a ring open enough to pop a bead in or out.

Captive Bead Ring

Other Oddities

Pearling

- AKA genital beading.
- Small beads of various material beneath the skin.
- Seen in various world cultures.

Pearling

- Migration is common during & after healing.
Pearling Risks

- Rejection is rare, but can occur.
- Relatively safe: risks & healing much like any subdermal implant.

Rings

- Male patient complains of stainless steel ring placed on for over 5 hours to keep erection became stuck.
Suspension Piercing

Considering Body Modification?

- Select a reputable practitioner, who carries a certification.
- Ensure that all tools are steriley packaged & new bottles of ink are used.

Celebrity Tat Quiz

- Which male star changed Winona Forever to Wino Forever?
  - Brad Pitt
  - Leonardo DiCaprio
  - Johnny Depp
Celebrity Tat Quiz

Which female comedian got tattoos to look like the “Suicide Girls”? But was so old that she calls herself “Assisted Suicide Girl”.

- Margaret Cho
- Joan Rivers
- Rosie O’Donnell

Considering Body Modification?

- Don’t get a modification when drunk!
- Carefully consider your design choice.
Questions?