Reconstruction after Mohs- facial flaps

- Cannot distort non-distortable structures
- Attempt to place much of flap as possible in RSTL
- Vector of tension away from important structures

Reconstruction- Eyelid anatomy

Reconstruction- eyelid consideration

- Smooth mucous membrane internal lining
- Skeletal support equivalent to the tarsus
- Stable margin, keep eyelashes away from cornea
- Proper fixation of medial and lateral canthal attachments
- Adequate muscle for closure
- Supple thin skin to allow eyelid excursion
- Adequate levator action to lift upper lid above visual axis

Reconstruction- eyelids

- Deep component loss require complex repair
- Skin and sub-Q tissue primary closure, full thickness skin graft or rotation flaps
- Upper eyelid defect too large for primary closure FTSG contralateral eyelid
- Pre auricular or post auricular skin next best option
- Lower eyelid sensitive to contraction and ectropion
Reconstruction - eyelids

- Skin grafting for 1 cm defect
- Larger defects repaired with advancement rotation flaps from lateral cheek

Eyelids full thickness – direct repair, cantholysis

- Upper and lower up to 50%
- Borders perpendicular to eyelid margin
- Made into pentagon by excision of tissue below tarsus
- Skin hooks to pull edges together in no tension repair
- Tension then lateral canthotomy and cantholysis

Diagram of lower eyelid defect then repair

Reconstruction- nose

- What tissue layers are missing, what subunits are missing
- If greater than 50% of subunit involved better to excise the whole subunit
- Must replace missing tissue with like tissue
- Septal and conchal cartilage
- Septal or bipartite intranasal lining flaps

Nose - evaluation

- Convex subunits- dorsum, tip, alae, columella reconstruct well with flaps
- Concave subunits- soft triangle and nasal sidewalls reconstruct well with skin grafts
- thin skinned regions, dorsum, sidewalls, columella, lower half of lower tip lobule
- Repair with transposition flaps for defects < 1.5 cm or pre-auricular skin grafts

Reconstruction- nasal skin
Reconstruction - nasal skin

- Thick skinned regions; alae, upper nasal tip
- Repair with bi-lobed flap for lesion <1.5cm
- Larger defects require PMFF or nasolabial flap for alar subunit

Nose - PMFF

- Axial flap based on supratrochlear artery primarily, dorsal nasal arteries and supraorbital artery
- Supratrochlear deep to obicularis, over corrugator, piercing temporalis to run in superficial subcutaneous tissue external to the frontalis muscle

Diagram of cutaway view of forehead with muscle and arteries

Nose - PMFF

- May thin distal 1-2 cm to near dermis because of location of artery
- Pedicle may be as narrow as 1.2 cm to improve arc of rotation

Nose - superior melolabial flap

- Axial flap from perforators of levator labii superioris
- Medial incision in nasolabial fold, lateral incision to level of inferior wound

Reconstruction - Cheek

- Reconstruction aided by laxity of skin and relative abundance
- Small to moderate defects closed primarily
- Advancement, transposition and rotation flaps
- Caution given to level of facial nerve
Reconstruction cheek

- Maintain motor and if possible sensory function

Reconstruction - cheek

- Sensory function
  - Supraorbital and supratrochlear nerve run with vessels in sub-Q tissue to parietal scalp
- Maintenance of brow symmetry
- Maintenance of natural-appearing frontal and temporal hair lines
- Hiding of scars when possible (into hairlines & eyebrows)
- Creation of transverse instead of vertical scars whenever possible (except in midline forehead), avoidance of diagonal scars

Reconstruction - forehead

- Maintain motor and if possible sensory function

Reconstruction- forehead

- Primary closure
Reconstruction - forehead

- Primary closure/Flap