
Algorithms for Specific Sites

Scalp

Central (Vertex) Defects

Small

1. Primary closure
2. Healing by secondary intention

Medium

1. Rotation/transposition flap
2. O-Z closure
3. Multiple rotation (pinwheel) flaps
4. Multiple Limberg flaps
5. Skin graft

Large

1. Skin graft
2. Multiple rotation flaps
3. Rotation/transposition flap with skin graft to secondary defect

Lateral Defects

Small

1. Primary closure

Medium

1. Unilateral/bilateral advancement flap
2. Rotation/transposition flap
3. O-Z closure

Large

1. Rotation/transposition flap with skin graft to secondary defect
 2. Skin graft
-

Forehead**Central Defects****Small**

1. Primary closure (vertical)
2. “W” excision (inferior)
3. “M” excision (superior)

Medium**Upper**

1. V-T flap
2. Unilateral/bilateral advancement flap

Lower

1. A-T flap
2. Unilateral/bilateral advancement flap

Paramedian**Small**

1. Primary closure (vertical/horizontal)

Medium**Upper**

1. V-T flap
2. Unilateral/bilateral advancement flap
3. Rotation/transposition flap

Lower

1. A-T flap
2. Unilateral/bilateral advancement flap

Temple/Lateral Forehead**Small**

1. Primary closure (along crow's feet)

Medium

1. V-T flap
2. Rotation/transposition flap
3. Rhombic flap
4. Skin graft

Nose**Dorsum****Small**

1. Primary closure (vertical/horizontal)

Medium

1. Glabellar advancement flap
2. Glabellar transposition flap

Nasal Tip**Small**

1. Primary closure (vertical/horizontal)

Medium

1. Glabellar advancement flap
2. Bilobed flap
3. Skin graft

Columella

1. Skin graft
2. Two-stage melolabial flap

Sidewall**Small**

1. Primary closure (vertical)
2. Healing by secondary intention

Medium

1. Skin graft

Upper Sidewall

1. Glabellar transposition flap

Lower Sidewall

1. Bilobed wall
2. Apron flap

Ala**Small**

1. Island advancement flap

Medium

1. Bilobed flap (laterally based)
2. Bilobed flap (medially based)
3. Two-stage melolabial flap

Paramedian Forehead Flap

1. Large nasal defects involving multiple nasal subunits
2. Large nasal tip defects
3. Large alar defects
4. Large dorsal defects
5. Large sidewall defects
6. Columella defects

Eyelids

Upper Eyelid

Anterior Lamellar Defects

1. Primary closure (horizontal/vertical)
2. Advancement flap
3. Fricke flap
4. Skin graft

Full-Thickness Defects

Small

1. Primary closure (vertical)

Medium

1. Primary closure with lateral canthotomy and superior cantholysis
2. Tenzel flap

Large

1. Cutler-Beard flap

Medial Canthus

1. Healing by secondary intention
2. Glabellar transposition flap
3. Glabellar island flap
4. Skin graft

Lower Eyelid

Anterior Lamella Defects

Small

1. Primary closure (vertical)
2. Tear drop

Medium

1. Advancement flap
2. Tripiet flap
3. Rotation/transposition flap

Large

1. McGregor flap
2. Mustardé flap

Full-Thickness Defects**Small**

1. Primary closure

Medium

1. Primary closure with lateral canthotomy and inferior cantholysis
2. Tenzel flap

Large Defects

1. Hughes flap
2. McGregor flap
3. Mustardé flap

Ear**Concha****Partial Thickness**

1. Healing by secondary intention
2. Skin graft

Partial Thickness/Full Thickness

1. Revolving door flap
2. Postauricular island flap
3. Postauricular transposition flap

Antihelix/Helix**Partial Thickness**

1. Healing by secondary intention (antihelix)
2. Skin graft (antihelix)

Full Thickness

1. Wedge excision
2. Helical rim advancement
3. Two-stage postauricular flap

Triangular Fossa

1. Healing by secondary intention
2. Skin graft
3. Superiorly based preauricular flap

Posterior Surface of Pinna

1. Healing by secondary intention
2. Primary closure
3. Skin graft
4. Advancement flap

Lobule

1. Primary closure

Cheek**Medial****Small**

1. Primary closure

Medium

1. Island advancement flap
2. Laterally based rotation/transposition flap

Buccal**Small**

1. Primary closure

Medium

1. Primary closure
2. Rhombic flap

3. Rotation/transposition flap (lateral)
4. Rotation/transposition flap (inferior)
5. Island advancement flap
6. Bilobed flap

Infraorbital Unit

Small

1. Primary closure

Medium

1. Laterally based rotation/transposition flap
2. Inferiorly based rotation/transposition flap

Zygomatic Unit

Small

1. Primary closure

Medium

1. Rhombic flap
2. Rotation/transposition flap

Mandibular

Small

1. Primary closure

Medium

1. Rhombic flap
2. Rotation/transposition flap
3. Bilobed flap

Lateral Unit

Small

1. Primary closure

Medium

1. Asymmetric primary closure
2. Rhombic flap
3. Rotation/transposition flap
4. Bilobed flap

Lips**Lower Lip****Skin Only****Small**

1. Primary closure (along rhytids)
2. M/W closure

Medium

1. A-T Flap
2. Inferiorly based nasolabial flap
3. Superiorly based nasolabial flap

Mucosa Only**Small**

1. Primary closure

Medium/Large

1. Mucosal advancement flap

Full-Thickness Defect**Small**

1. Primary closure
2. W excision

Medium

1. Bilateral advancement flap
2. Karapandzic flap
3. Abbe flap
4. Abbe-Estlander flap

Large Defects

1. Karapandzic flap
2. Bilateral advancement flap
3. Karapandzic flap + Abbe flap
4. Fan flap

Upper Lip**Skin Only**

Small

1. Primary closure
2. A-T flap
3. Unilateral/bilateral advancement flap

Medium

1. Laterally based rotation/transposition flap
2. Unilateral/bilateral perialar crescentic advancement flap
3. Island advancement flap
4. Inferiorly based nasolabial flap

Full Thickness

Small

1. Primary closure

Medium

1. Perialar crescentic advancement flap
2. Karapandzic flap
3. Abbe flap
4. Abbe-Estlander flap

Large

1. Bilateral nasolabial flap + Abbe flap

Chin Defects

Small

1. Primary closure

Medium

1. V-T flap
2. Rotation flap
3. Bilobed flap
4. Rhombic flap

Neck

Central Neck

1. Primary closure
2. O-Z flap
3. Rhombic flap

Lateral Neck

1. Primary closure
2. O-Z flap
3. Rotation/transposition flap

Posterior Neck

1. Primary closure
2. O-Z flap
3. Rotation/transposition flap

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