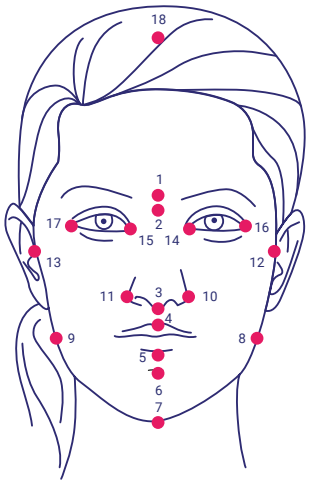
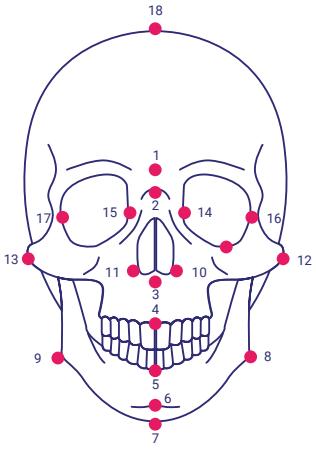
Skeleton ID

Quick Reference Guide to Craniofacial Superimposition (CFS)

Landmarks



Glabella | g'	1	Glabella | g
Nasion | n'	2	Nasion | n
Subnasale | sn'	3	Subspinale | ss
Labiale superius | ls'	4	Prosthion | pr
Labiale inferius | li'	5	Infradentale | id
Pogonion | pg'	6	Pogonion | pg
Gnathion | gn'	7	Gnathion | gn
Gonion left | go' L	8	Gonion left | go L
Gonion right | go' R	9	Gonion right | ls
Alare left | al' L	10	Alare left | al L
Alare right | al' R	11	Alare right | al R
Zygion left | zy' L	12	Zygion left | zy L
Zygion right | zy' R	13	Zygion right | zy R
Endocanthion left | en' L	14	Dacryon left | d L
Endocanthion right | en' R	15	Dacryon right | d R
Exocanthion left | ex' L	16	Ectoconchion left | ec L
Exocanthion right | ex' R	17	Ectoconchion right | ec R
Vertex | v'	18	Vertex | v



MEPROCS Gradual Scale for Decision- Making

Strong support	Moderate support	Limited support	Undetermined	Limited support	Moderate support	Strong support
Of **NOT BEING** the same person				Of **BEING** the same person		
There is incompatible inconsistency			There is no incompatible inconsistency			

STRONG SUPPORT	• Complete cranium with corresponding mandible • Sufficient dentition to evaluate occlusion • At least two photos in different poses of sufficient quality
MODERATE SUPPORT	• One photo of sufficient quality • Sufficient parts of the cranium with corresponding mandible • Sufficient dentition to evaluate occlusion
LIMITED SUPPORT	• Insufficient dentition to evaluate occlusion OR • Either incomplete skull and one photo of sufficient quality OR • Complete skull and one poor quality photo

There could be discriminatory characteristics that allow a move to the left or right within the scale given an apropirate explanation in the report. A strong support of not being the same person means exclusion.

Best practices

1. Use the **real skull** to establish occlusion and articulate the mandible as displayed in AM photograph
2. Use **multiple AM photos** of good quality
3. **Avoid** images with **obscuring objects**
4. During growth period of children, always use the **most recent** AM photos. For adults, the **most informative**
5. Use **original AM photos**, avoiding image manipulation
6. Preserve **aspect ratio** of the photograph
7. Extract digital and visual infomation from the photograph to **infer** original **photographic conditions**
8. **Analyze** skull and face separately prior to overlay
9. When multiple candidates are available, **sort** them out according to the description and prioritize
10. Use as many criteria as possible to **study the relationship** between face and skull
11. Consider the **discriminative power** of each anatomical criterion
12. Give an **appropiate weight** to each criterion

Practices to avoid

1. **Confirmation bias**
2. Attempting CFS on **edentulous skulls**
3. Using one single, **low-resolution, frontal** Passport-style photograph for comparison
4. Cases in which the subject is **under the age of 5**

Main sources of error

1. Skull Face Overlay – **perspective of the skull**
2. **Articulation** of the mandible and **replication** of its position in the AM photograph
3. Incomplete **preservation** and post-mortem **reassembly** of the skull
4. **Inaccurate** 3D skull **acquisition**
5. **Unknown origin** of the AM photograph
6. Post-mortem **skull damage**