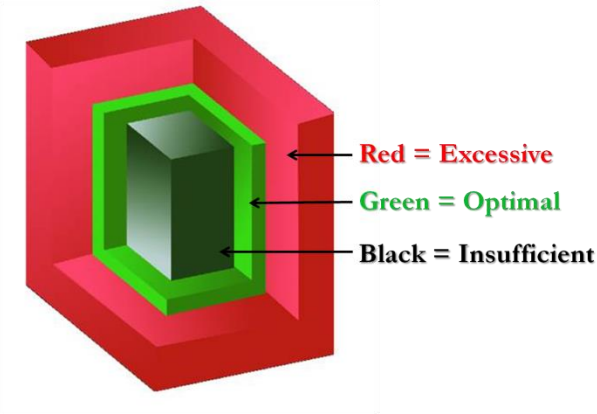
# The Six Elements of Orofacial Harmony™

The ***Six Elements of Orofacial Harmony***™ describe the tooth, arch, jaw, and chin characteristics associated with optimum health, function, and appearance. The ***Six Elements***™ serve as the treatment goals for the six areas of the orofacial complex for which orthodontists have diagnostic and treatment responsibilities: **1)** The arch: teeth individually (morphology, quantity, and positions) and collectively (arch width, depth, shape, length, and symmetry), **2)** AP jaw positions, **3)** Jaw widths, **4)** Jaw heights, **5)** Chin prominence and, **6)** Occlusion.

Associated with the Six Elements™ are universal landmarks and referents by which the quality of tooth, arch, jaw, and chin positions can be measured relative to the treatment goals. As a byproduct of treating teeth and jaws the *harmony* of the temporomandibular complex, oral tissues, and external facial tissues are maintained or improved. A patient with *optimal orofacial harmony* may or may not be beautiful or handsome but will have optimum health, optimum function, and the best possible appearance.

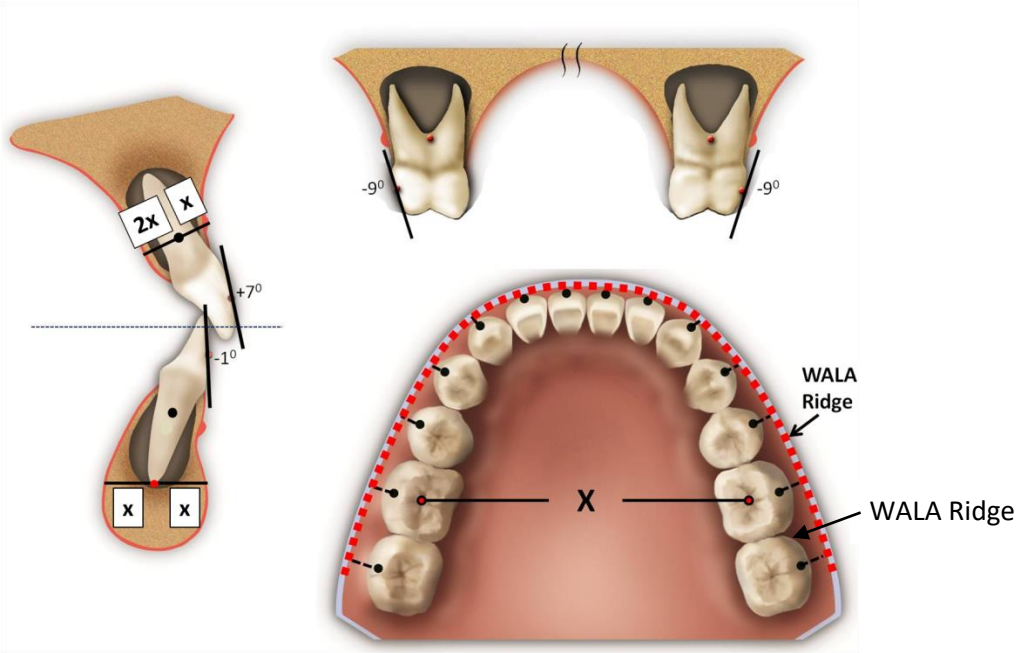
The ***Six Elements***™ also serve as the basis for a three-dimensional, positionally correct classification system. The qualities of the arches, jaws, and chin can be clearly and concisely communicated using a numeric and color-coded system.



**ELEMENT I– Optimal Arch: teeth *individually* (morphology, quantity, and positions), teeth *collectively* (arch width, shape, length, depth, and symmetry)** [1-16]

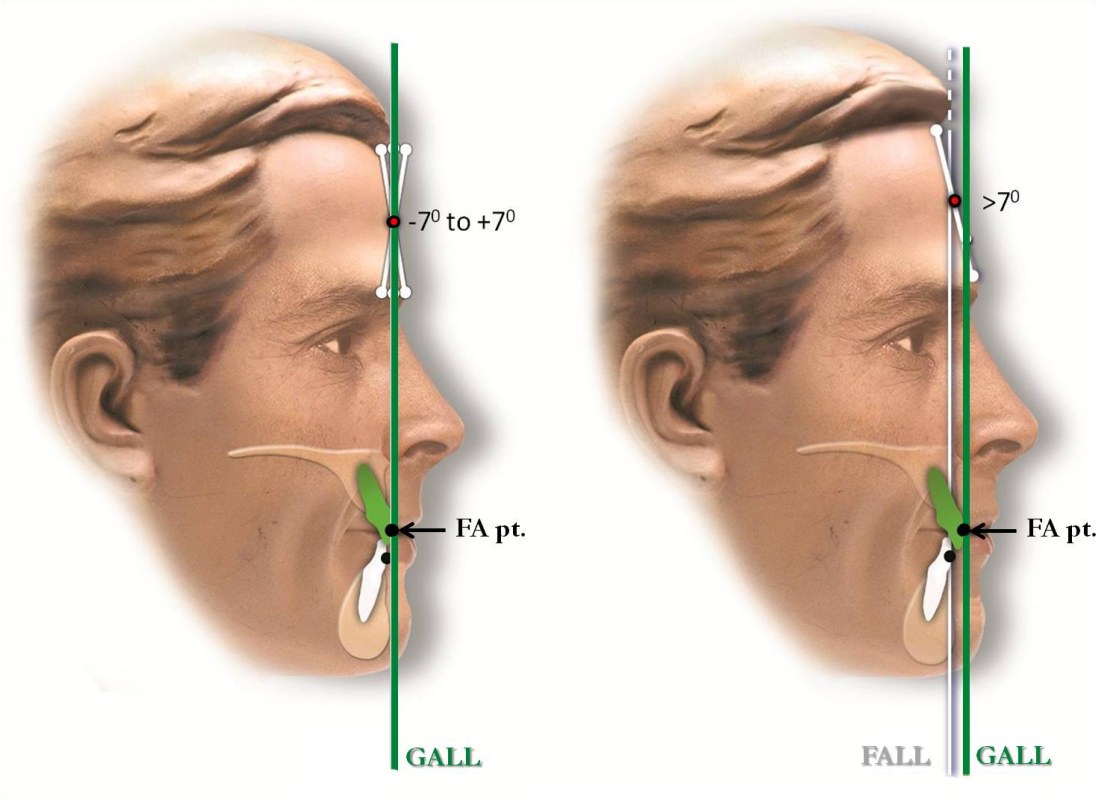
An optimal arch is the cornerstone of the remaining Elements. An arch is optimal when:

- tooth morphology is normal and there is 1 central incisor, 1 lateral incisor, 1 canine, at least 1 premolar, and at least 2 molars per quadrant
- roots are centered facio-lingually over basal bone (maxillary incisor roots occupy the anterior 1/3 of the alveolus)
- roots are surrounded by healthy alveolar bone and gingiva
- crowns are inclined and angulated so that their occlusal surfaces can interface and function optimally with teeth in the opposing arch (see Element VI)
- the depth of the core line is between 0.0 and 2.0 mm
- the length of the core line equals the sum of the mesiodistal diameters of the teeth in the arch
- the contact areas of the teeth abut
- the dental midline coincides with the skeletal midline of the jaw
- the skeletal width of the maxilla is in harmony with the skeletal width of the mandible (see Element III) and the shapes of the maxillary and mandibular arches are compatible.
- there is ample space distal to the terminal molars to allow access for oral hygiene



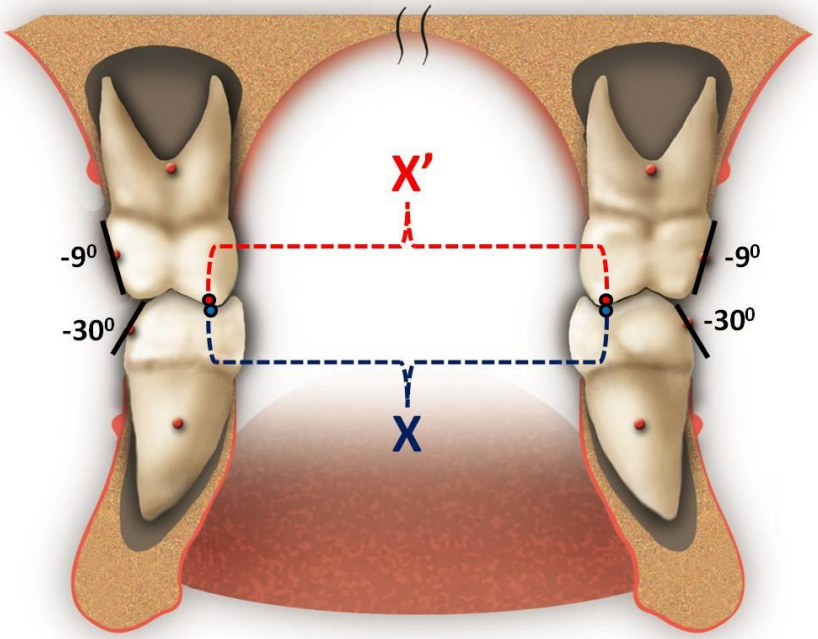
**ELEMENT II – Optimal Anteroposterior (AP) Jaw Positions** [17-26]

The AP position of the maxilla is optimal when the Facial Axis points (FA pts) of *Element I* maxillary incisors are on the Goal Anterior Limit Line (GALL). The recommended method for assessing this relationship is clinical judgment. The AP position of the mandible is optimal when it is in *centric relation*, the incisors are *Element I* and they interface optimally with *Element I* incisors in an optimal maxilla.



**ELEMENT III – Optimal Jaw Widths** [27,28]

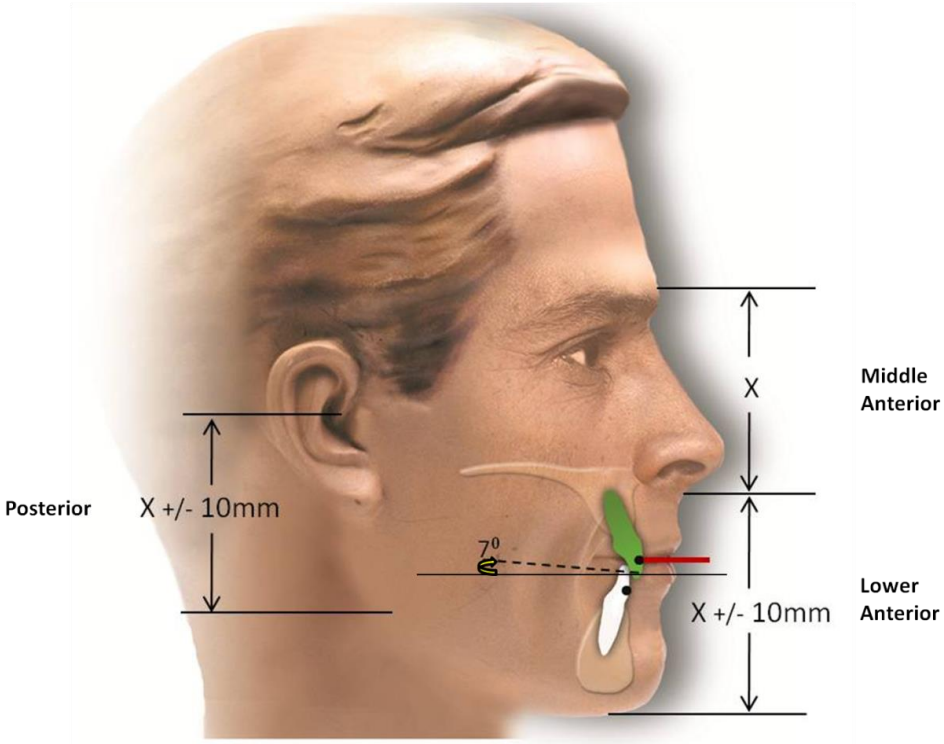
The width of the mandible is *naturally optimal* for most individuals. The width of the maxilla is optimal when distance X' mm (measured between the mesio-palatal cusp tips of *Element I* maxillary first molars) is equal to distance X mm (measured between the central fossae of *Element I* mandibular first molars).



**ELEMENT IV – Optimal Jaw Heights** [29-39]

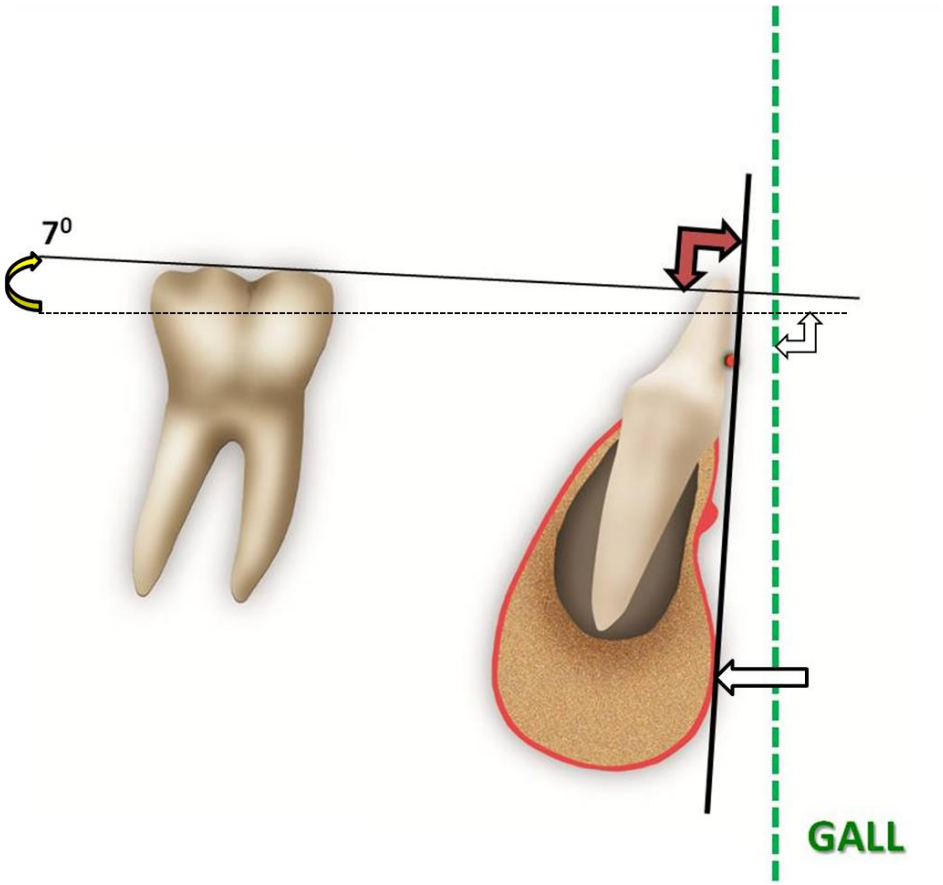
Jaw heights are optimal when:

- the arches are *Element I* and in full occlusion
- the middle anterior, lower anterior, and posterior face heights are in harmony with each other
- the maxillary incisors' FA pts are level with the inferior border of the upper lip in repose
- the occlusal plane orientation (inclination and cant) is in harmony with function and esthetics



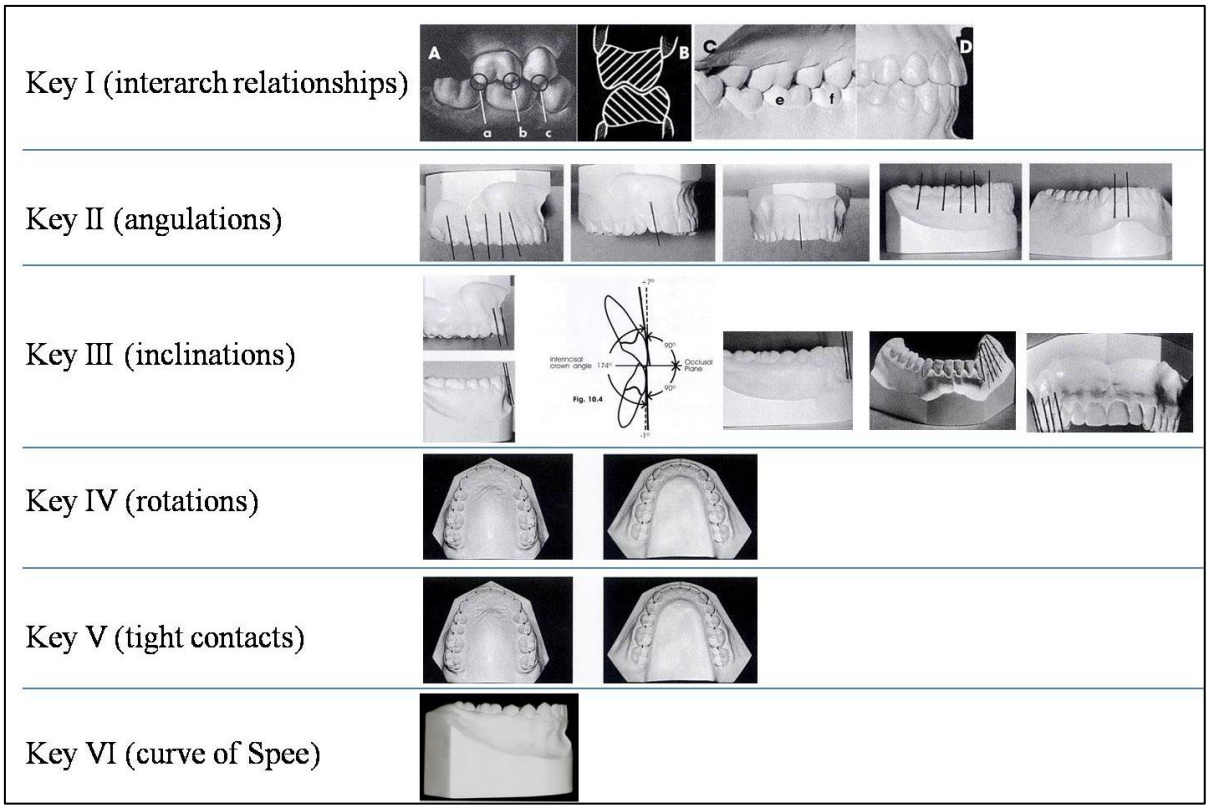
**ELEMENT V – Optimal Chin Prominence** [40-45]

Chin prominence is measured independently of the mandible's AP position. Assuming normal soft tissue thickness, chin prominence is optimal when the AP prominence of pogonion matches the AP prominence of the FA pts of *Element I* mandibular central incisors.



**ELEMENT VI – Optimal Occlusion** [46-48]

The requirements for an optimal occlusion include: *Element I* teeth and arches, *Element II*, *III*, and *IV* jaw characteristics, and the **Six Keys to Optimal Occlusion**©. Collectively, the presence of *Elements I-IV* creates the environment within which an esthetic, functional, and healthy occlusion can exist. The Six Keys to Optimal Occlusion are:




**SUMMARY**

The ***Six Elements of Orofacial Harmony™*** are scientifically defensible goals associated with optimum health, function, and appearance. Differences in size, shape, gender, age, and/or ethnicity between individuals have little influence upon the optimal positions and relationships of the teeth, arches, jaws, and chin when measured relative to the ***Six Elements***.

Each *Element* is diagnosed using landmarks and referents that are tangible, unique, and universal. They make possible a new three-dimensional, positionally-correct classification system called the ***Six Elements Classification System***. This system provides orthodontist the means to accurately communicate a patient's condition relative to the intended post-treatment goals

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