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IFUNA
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DENTAL VERTICALITY

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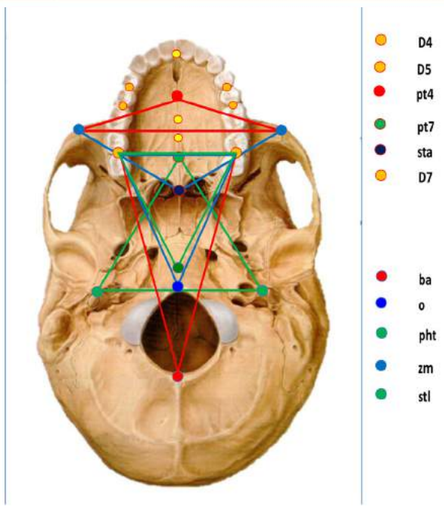
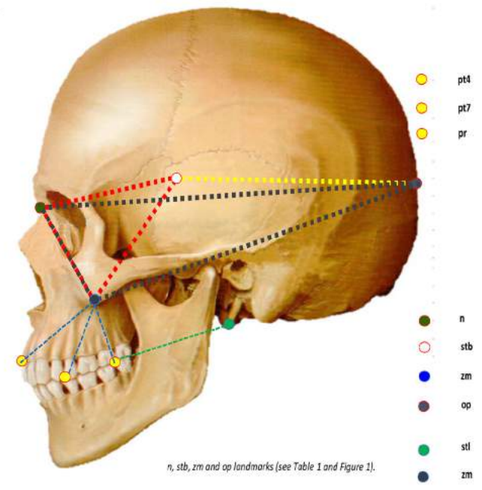


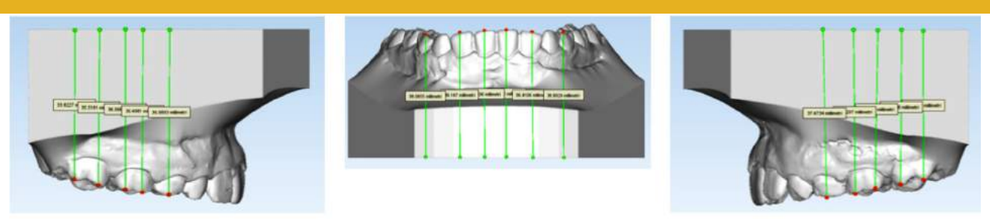
GEOMETRIC MATRIX

We have analyzed skull architecture with linear and angular measurements, data shows positive loadings in dental and basal interlandmark distances.
Among the dental landmarks the one with the most linear and angular dental and basal correlations is **pt4** (midpoint between the first and second premolar)



INTRODUCTION

From the analysis of numerous clinical cases it emerges that the dental arches analyzed and measured in a three-dimensional orthogonal system show that there are teeth that have higher verticality than others.

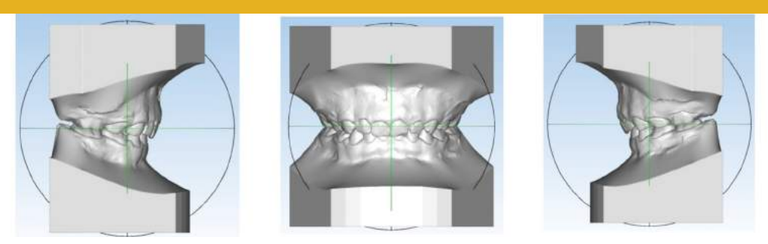


OBJECTIVES

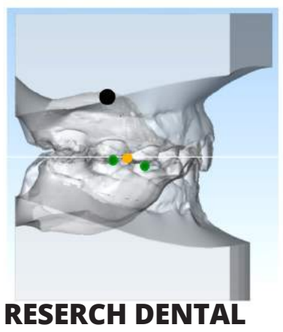
The dental verticality calculated on the plaster models according to our method represents a fundamental parameter in the individual diagnostic and therapeutic protocol of the orthognathic patient in evolutionary phases of craniofacial growth.

MATERIALS AND METHODS

We selected a sample of about 500 plaster models of individuals in evolutionary phase developed during orthopedic jaw therapy the models have been developed with the same method by a single odontotecnic laboratory

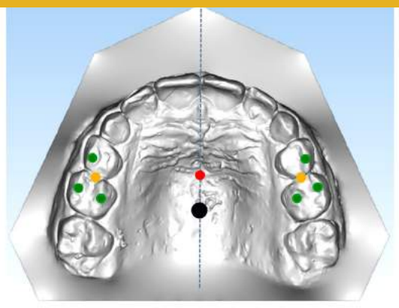


WHY THE ZERO POINT?



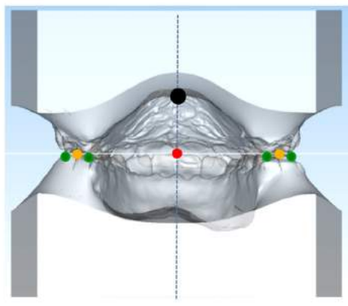
RESERCH DENTAL ANTROPOLOGY

- D4 dental point
- pt4 dental point



IDEA

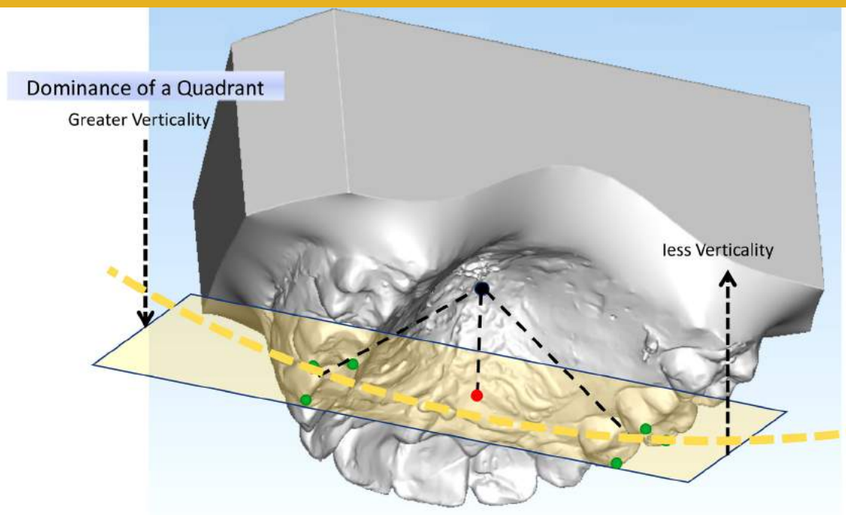
It's an equilibrium point and a reference point of an orthogonal and spherical system...



NEW LANDMARK

- vc4 vc5 pc5
- pt4 basal point = *zero point (Scioletti) = it is the projection of the pt4 on the palate*

ORTHOGONAL AND SPHERICAL REFERENCE SYSTEM

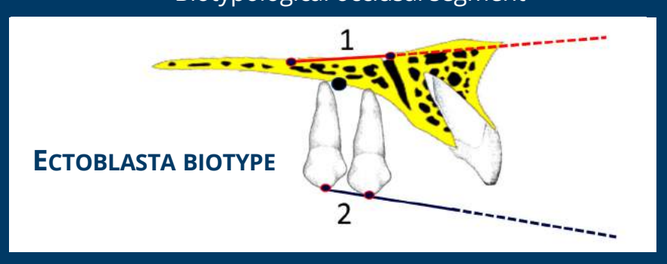


DENTAL BASAL VERTICALITY

The verticality of the molar deciduos is further acquired by the first permanent molars

DENTAL MODEL PLASTER

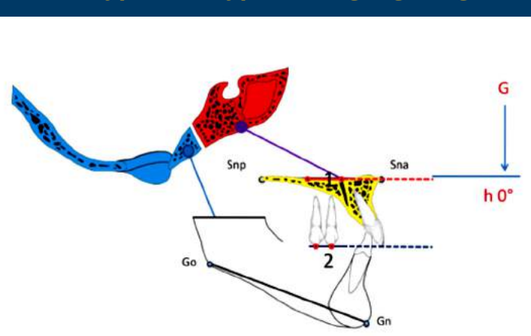
Biotypological basal segment and
Biotypological occlusal segment

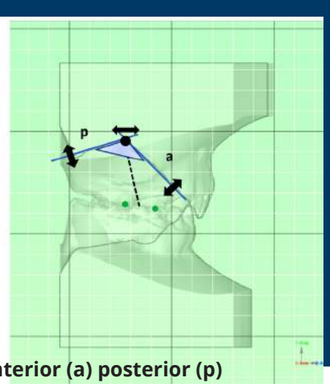


1 = Biotypological basal segment:
expresses the degree of the maxillary flexion-extension
2 = Biotypological occlusal segment: expresses the dental verticality

Relationship between:

- Basal zero point with the basic cranic flexion-exstension
- Hypo and Hyper divergenge of growth





Zero Basal Point ● is expressed with Palatal Angle: **anterior (a) posterior (p)**

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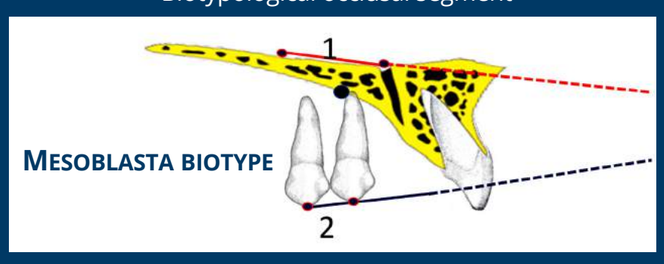

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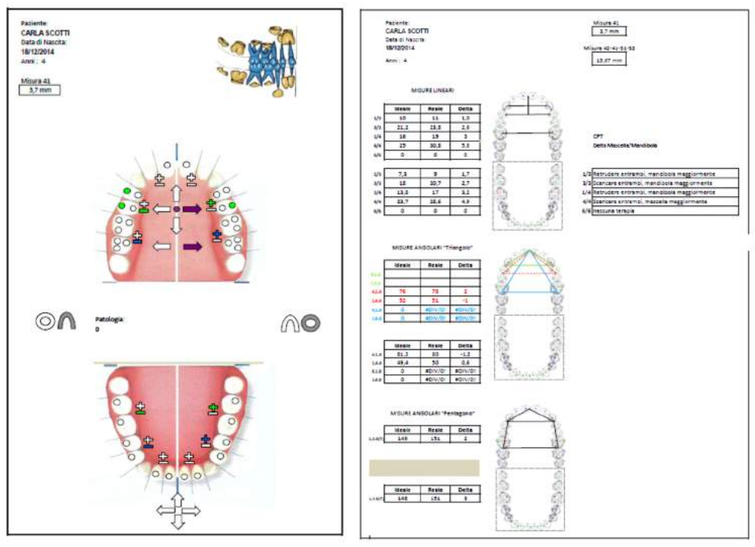

Functional Orthopedics

Cephalometry ... starting from measurements in 3D carried out on plaster models we developed mathematical functions "Trigonometric algorithms" which allow us to calculate measurements cephalometric linear and angular

CONCLUSIONS

ZERO POINT APPLICATIONS

Functional Posturology In our opinion, it represents a dominant neural information (proprioception and exteroception) correlated with the other receptors of the individual's global postural system

Prosthetic Rehabilitation

THE CHOICE OF THE OCCLUSAL PLANE AS THE PRIMARY PLANE OF THE REFERENCE SYSTEM

FOR THIS ELECTION WE RELY ON THE WORKS OF DIFFERENT AUTHORS

Rudolf L. Hanau (1881-1930)
The first author who has arranged the occlusal plane on a horizontal plane has been Hanau with his "rocking" occlusion theory, according to which the occlusal plane sits on the vestibular cusps of the 4 premolars.

Wilhelm Balters (1893-1973)
The occlusal plane is on the same plane of the atlas and both are on the horizontal plane.

Michel Clauzade / Jean Pierre Marty
The teeth originate from neural cells during cephalic migration and are space-postural receptors that form an occlusal plane whose neural reference is orthogonality.

Casey M. Guzay 1979
With his quadrant theorem he states that, as a rule, the OcP occlusal plane and the atlas are arranged horizontally and that the mobile part of the occlusal-articular system of the chewing organ is moved from a muscular system that pivots on the complex Atlas of the Axis.