

**Nr. 2825    48 Jahre    weibl.**

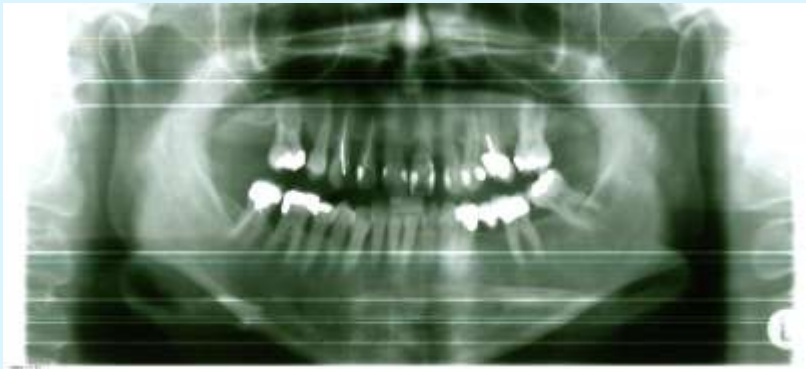
**Präprothet. KFO**

## Initial Situation:

- Strong chron. Perio!!
- Status after 15/25 extraction
- Steep ant. guidance
- Flaring of the upper front
- Dentoalv. CL I



2008-08-25



2007-10-04 Dr. Sonderegger



# Diagnosis

- Skel.open bite- tendency
- Status after extraction of 15/25 many years ago->Deverticalisation!!
- Mesialisation of 16/26
- Steepening of upper ant. guidance
- Dentoalv. CL I
- Overbite-tendency
- Flaring in the upper front
- Overeruption and mesioinclination of 38—steep post. occlusal plane—avoiding pattern in protrusion
- Crowding of the lower front
- Bruxing pattern during the night –tension in the closing muscles in the morning
- Strong chron.Periodontitis!!!!!!!!!!
- Defacetting on 36
- TMJ-clicking for many years
- Eight years ago bang in the ear on change of altitude with pain for ca. 4 months

## Chief Complaint

- Chron. Periodontitis with movements in the upper front
- Unstable and uncomfortable bite
- Aesthetically (upper front) and functionally!

# Treatment Plan

- Spaceclosing in the ant.upper arch without steepening
- Spaceopening in the regio of 15/25 reciprocally
- Intrusion and uprighting of 38 → protrusiv avoiding mechanism
- Verticalisation – mainly with the spaceopening in 15/25 for nice molar support due to TMJ`s
- Endorevision on 47
- Separating of the defacettetted bridge 34,35/2, 36
- Nice ant. guidance → flattening and protrusive protection

# Treatment Objectives

- Levelling phase -- 014/016 AW with OCS in regio 15/25 and short CLIII elastics
- Stage of MEAW-technique: LA-.TBB and depression for lower molars (37 >47) with short CL III elastics

# Initial Situation:



# Initial Situation:





## Slavicek Interaktive Verbalanalyse

**Der skelettale Trend des Schädels ist dolichofazial.**

Der skelettale Trend der Mandibula ist brachyfazial.

Skelettale Klasse I

Die Maxilla liegt neutral.

Die Mandibula liegt neutral.

Die Untergesichtshöhe ist normal.

Dentale Klasse I

Die Protrusion des oberen Schneidezahnes ist erhöht.

Die Inklination des oberen Schneidezahnes ist normal.

Die Protrusion des unteren Schneidezahnes ist erhöht.

Die Inklination des unteren Schneidezahnes ist normal.

Der Interinzisalwinkel ist normal.

Okklusionskonzept: Gruppenfunktion.

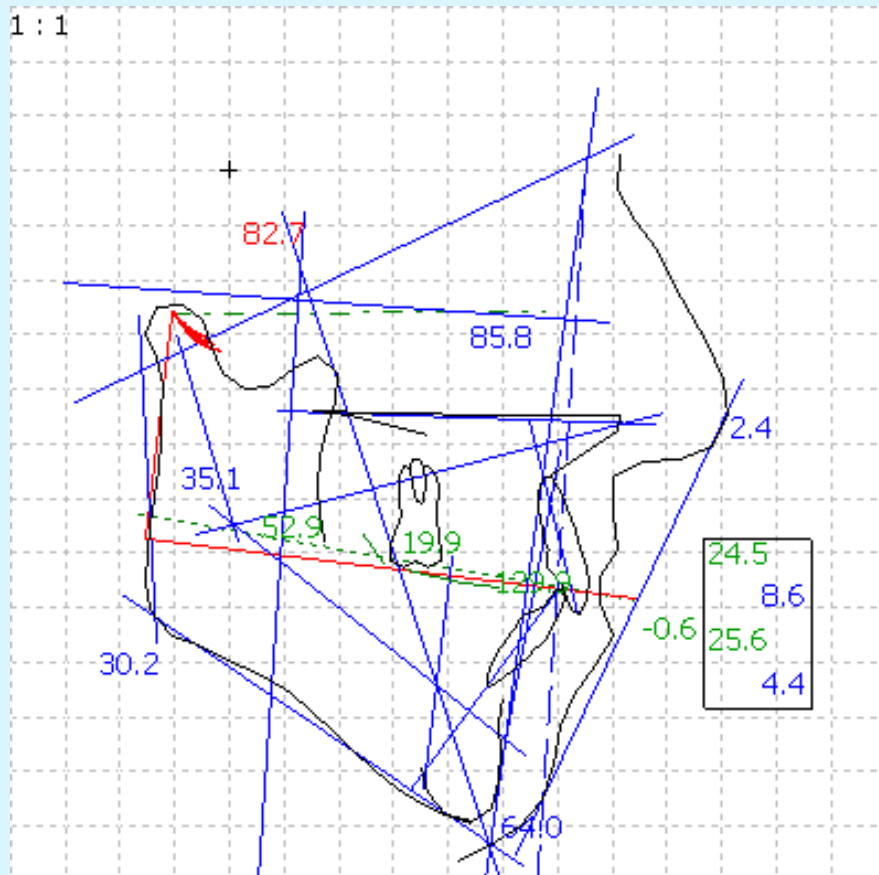
Keine funktionellen Angaben vorhanden.

### Erklärung

|  | Norm    | Wert  | Trend |
|--|---------|-------|-------|
| <i>bestimmende Meßwerte</i>            |         |       |       |
| Fazialachsenwinkel                     | 90.0 °  | 82.7  | 2D**  |
| Fazialtiefe (Fazialebenenwinkel)       | 89.0 °  | 85.8  | 1-*   |
| Kinnwinkel (Facial Taper)              | 68.0 °  | 64.0  | 1D*   |
| Mandibularplanum (Unterkieferebenenw.) | 24.0 °  | 30.2  | 1D*   |
| <i>Weitere Meßwerte</i>                |         |       |       |
| Bjoerk Summe                           | 396.0 ° | 395.7 |       |
| Gesichtslängenverhältnis               | 63.5 %  | 65.7  | 1+*   |
| Y-Achse zu S N                         | 67.0 °  | 71.0  | 1+*   |
| Y-Achse (Downs)                        | 61.2 °  | 64.9  | 1+*   |
| S N - Gonion Gnathion Winkel           | 32.6 °  | 35.7  |       |



1 : 1



2008-08

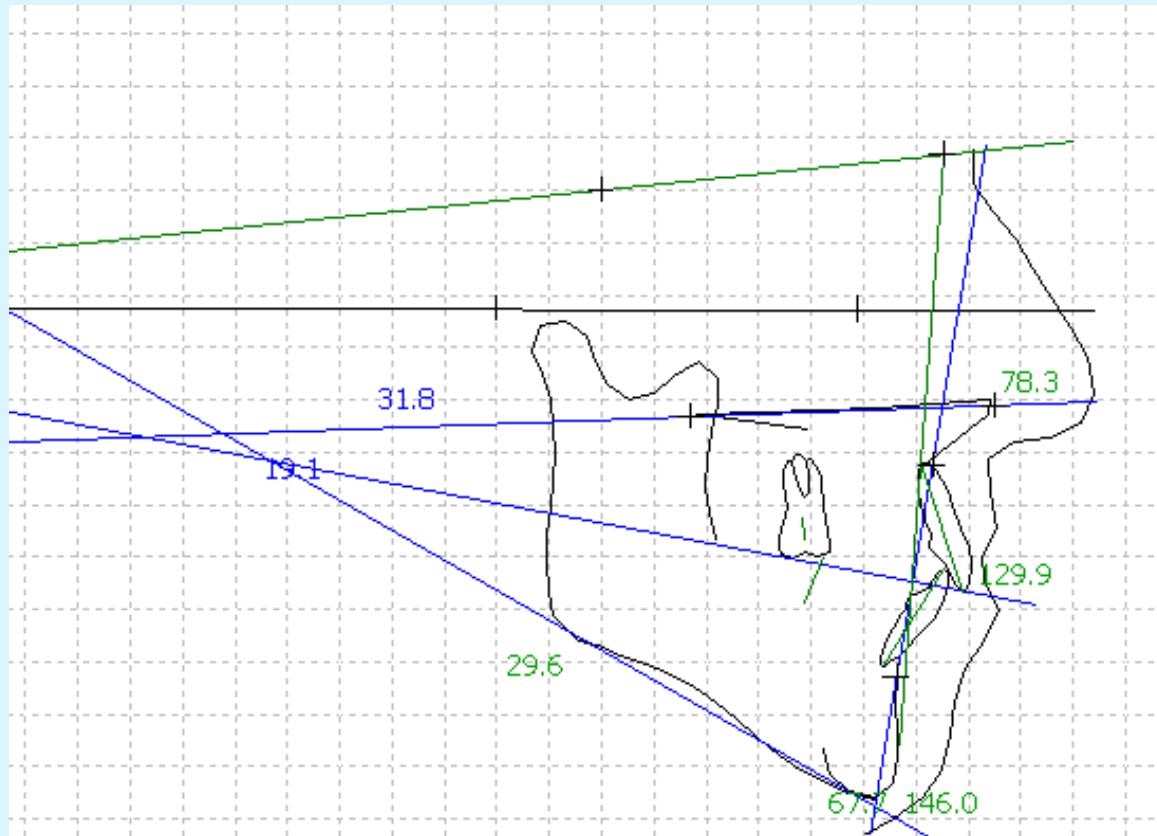
## Slavicek Analyse

| Skelettale Vermessung                               |         | Norm  | Wert | Trend |
|---|---------|-------|------|-------|
| Fazialachsenwinkel                                  | 90.0 °  | 82.7  | 2D** |       |
| Fazialtiefe (Fazialebenewinkel)                     | 89.0 °  | 85.8  | 1-*  |       |
| Mandibularplanum (Unterkieferebenenw.)              | 24.0 °  | 30.2  | 1D*  |       |
| Kinnwinkel (Facial Taper)                           | 68.0 °  | 64.0  | 1D*  |       |
| Collumwinkel (Unterkieferbogenwinkel)               | 29.0 °  | 35.1  | 1B*  |       |
| Maxilläre Position                                  | 65.0 °  | 62.9  |      |       |
| Konvexität (Punkt A)                                | 0.0 mm  | 2.4   | 1X*  |       |
| Untergesichtshöhe (Slavicek Norm)                   | 47.5 °  | 52.9  |      |       |
| Untergesichtshöhe zu D                              | 54.0 °  | 62.3  | 2+** |       |
| Dentale Vermessung                                  |         | Norm  | Wert | Trend |
| Interinzisalwinkel                                  | 131.3 ° | 129.9 |      |       |
| Obere Schneidezahnprotrusion                        | 5.6 mm  | 8.6   | 1+*  |       |
| Obere Schneidezahninkliniation                      | 26.4 °  | 24.5  |      |       |
| Oberer Schneidezahnstand                            | mm      | 4.0   |      |       |
| Untere Schneidezahnprotrusion                       | 0.9 mm  | 4.4   | 1+*  |       |
| Untere Schneidezahninkliniation                     | 22.3 °  | 25.6  |      |       |
| Sagittale Molarendistanz                            | 18.0 mm | 19.9  |      |       |
| Okklusionsebene                                     |         | Norm  | Wert | Trend |
| Okklusionsebene - Achse-Orbitale Ebene              | ----- ° | 7.0   |      |       |
| Idealisierte Okklusionsebene - Achse-Orbitale Ebene |         | 10.8  |      |       |
| Abstand Okklusionsebene - Achse (DPO)               | 40.9 mm | 41.7  |      |       |
| Radius der Spee'schen Kurve                         | mm      |       |      |       |
| Lippenspalt - Okklusionsebene                       | 0.0 mm  | -0.2  |      |       |
| Okklusionsebene XI Abstand                          | -1.4 mm | -4.6  |      |       |
| Funktionelle Vermessung                             |         | Norm  | Wert | Trend |
| HKN (rechts)  | ----- ° | 47.9  |      |       |
| HKN (links)   | ----- ° | 42.4  |      |       |
| Horizontale Kondylenbahnneigung                     | ----- ° | 45.2  |      |       |
| RKN   | ----- ° | 38.1  |      |       |
| RKN 6   | ----- ° | 33.1  |      |       |
| RKN 7   | °       |       |      |       |
| RKN 8   | ----- ° | -6.7  |      |       |
| Schneidezahnführung                                 | °       |       |      |       |
| Relative Frontzahnführung                           | °       |       |      |       |
| Ästhetische Vermessung (Lippenrelation)             |         | Norm  | Wert | Trend |
| Ästhetische Ebene                                   | -2.3 mm | -0.6  |      |       |

Dr. Josef Mangor

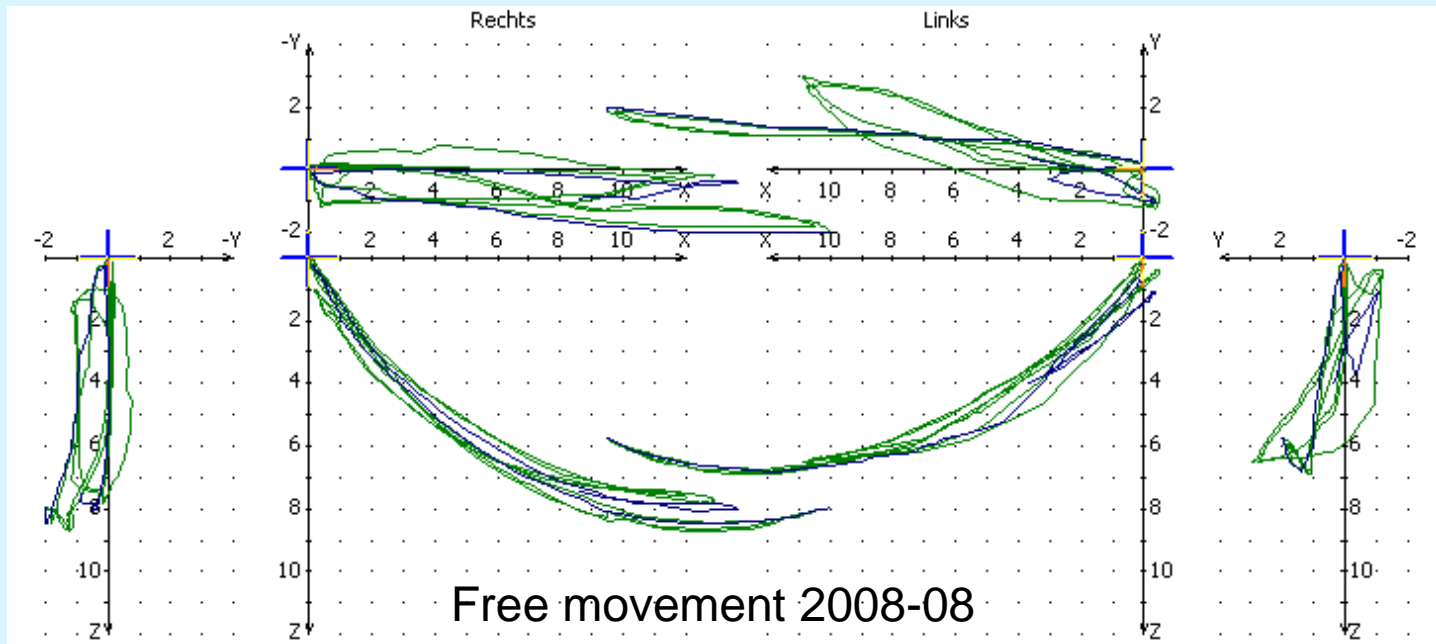
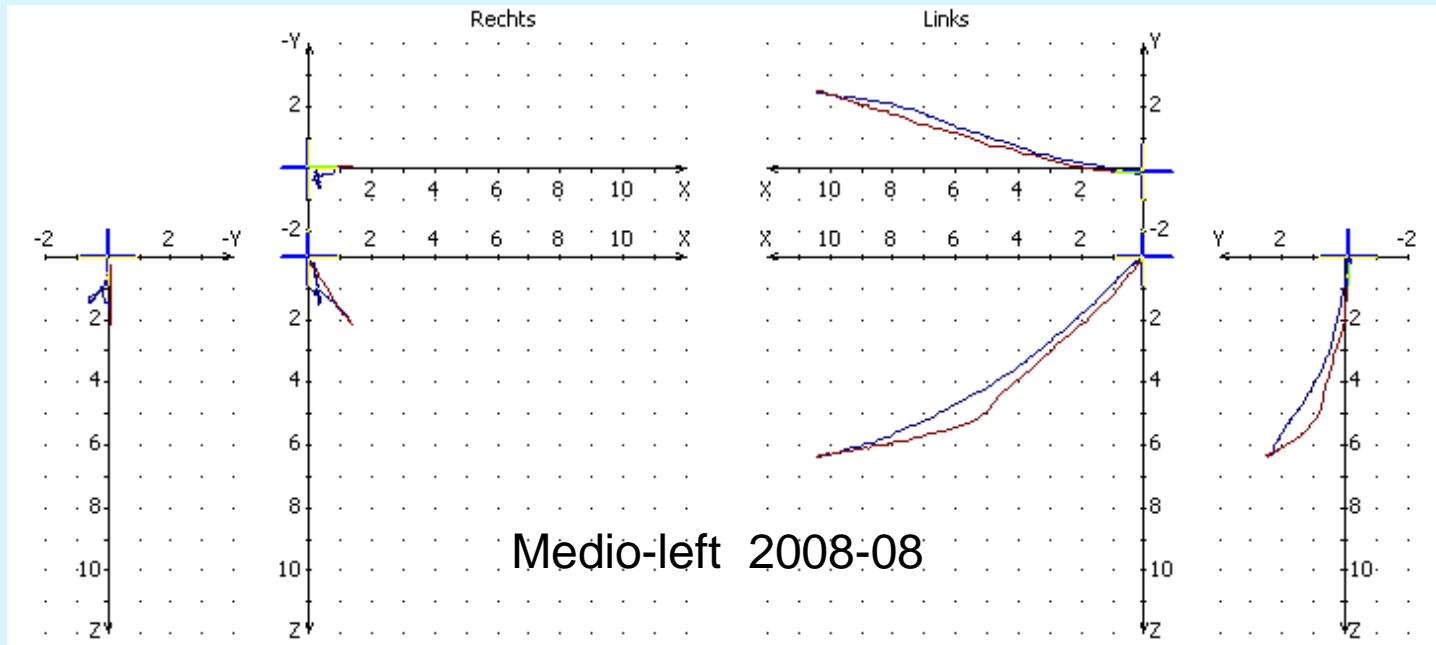


# Sato Analyse



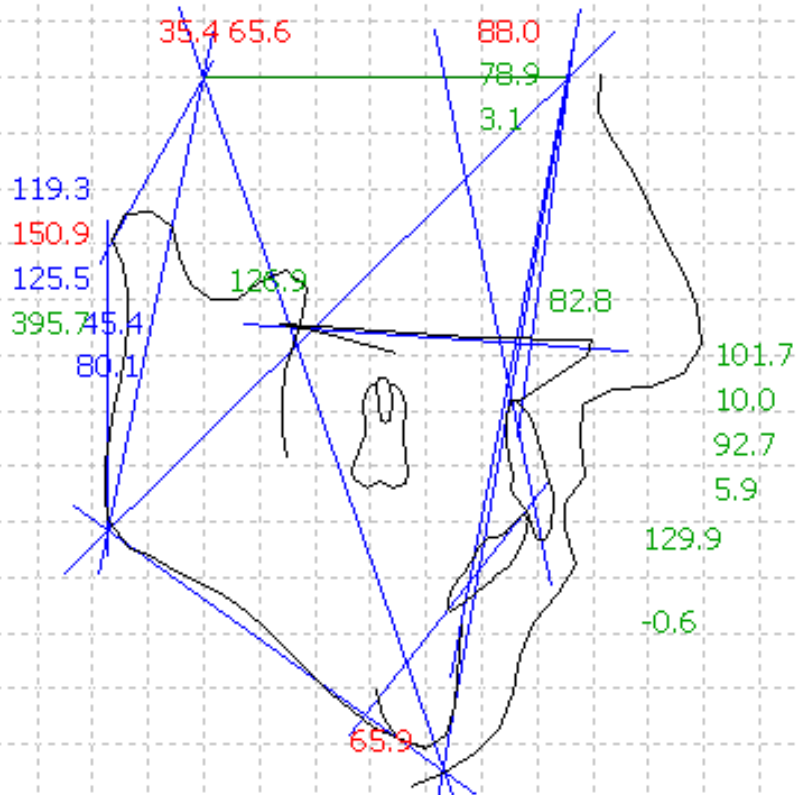
2008-08

| Denture frame Analyse  | Norm    | Wert  | Trend   |
|------------------------|---------|-------|---------|
| FH - MP                | 25.9 °  | 29.6  |         |
| PP - MP                | 24.6 °  | 31.8  | 1+*     |
| OP - MP                | 13.2 °  | 19.1  | 1+*     |
| OP - MP / PP - MP      | 54.0 %  | 60.0  |         |
| AB - MP                | 71.3 °  | 70.0  |         |
| A'-P'                  | 50.0 mm | 31.9  | 3m***   |
| A'-6'                  | 23.0 °  |       |         |
| A'-6' / A'-P'          | 50.0 %  |       |         |
| U1 - AB (degree)       | 31.7 °  | 27.3  | 1-*     |
| U1 - AB (mm)           | 9.5 mm  | 9.8   |         |
| L1 - AB (degree)       | 25.4 °  | 22.8  |         |
| L1 - AB (mm)           | 6.2 mm  | 5.4   |         |
| Intermolarwinkel       | 174.0 ° | 167.5 | 1+*     |
| FH - PP                | 1.3 °   | -2.2  | 3-***   |
| Kim Analyse            | Norm    | Wert  | Trend   |
| ODI                    | 72.0 °  | 67.7  |         |
| APDI                   | 81.0 °  | 78.3  |         |
| Kombinationsfaktor     | 153.0 ° | 146.0 |         |
| Downs-Graber Analyse   | Norm    | Wert  | Trend   |
| Facialwinkel           | 84.9 °  | 85.8  |         |
| Convexity              | -7.6 °  | -4.8  |         |
| AB - Facialebenewinkel | -4.8 °  | -5.4  |         |
| FH - MP                | 25.9 °  | 29.6  |         |
| Y Achse                | 65.4 °  | 64.8  |         |
| FH - OP                | 11.4 °  | 10.5  |         |
| Interinzisalwinkel     | 124.1 ° | 129.9 |         |
| L1 - OP                | 66.2 °  | 60.7  | 1+*     |
| L1 - MP                | 96.3 °  | 92.7  |         |
| U1 - A.POG             | 8.9 mm  | 8.6   |         |
| FH - SN                | 6.2 °   | 6.1   |         |
| SNA Winkel             | 83.3 °  | 82.1  |         |
| SNB Winkel             | 78.9 °  | 78.9  |         |
| ANB Winkel             | 3.4 °   | 3.1   |         |
| U1 - Facialebene (mm)  | 11.7 mm | 10.0  |         |
| U1 - FH (deg)          | 111.1 ° | 107.8 |         |
| U1 - SN (deg)          | 104.5 ° | 101.7 |         |
| Gonionwinkel           | 122.2 ° | 125.5 |         |
| Ramus Neigung          | 29.0 °  | 106.1 | 17+***> |

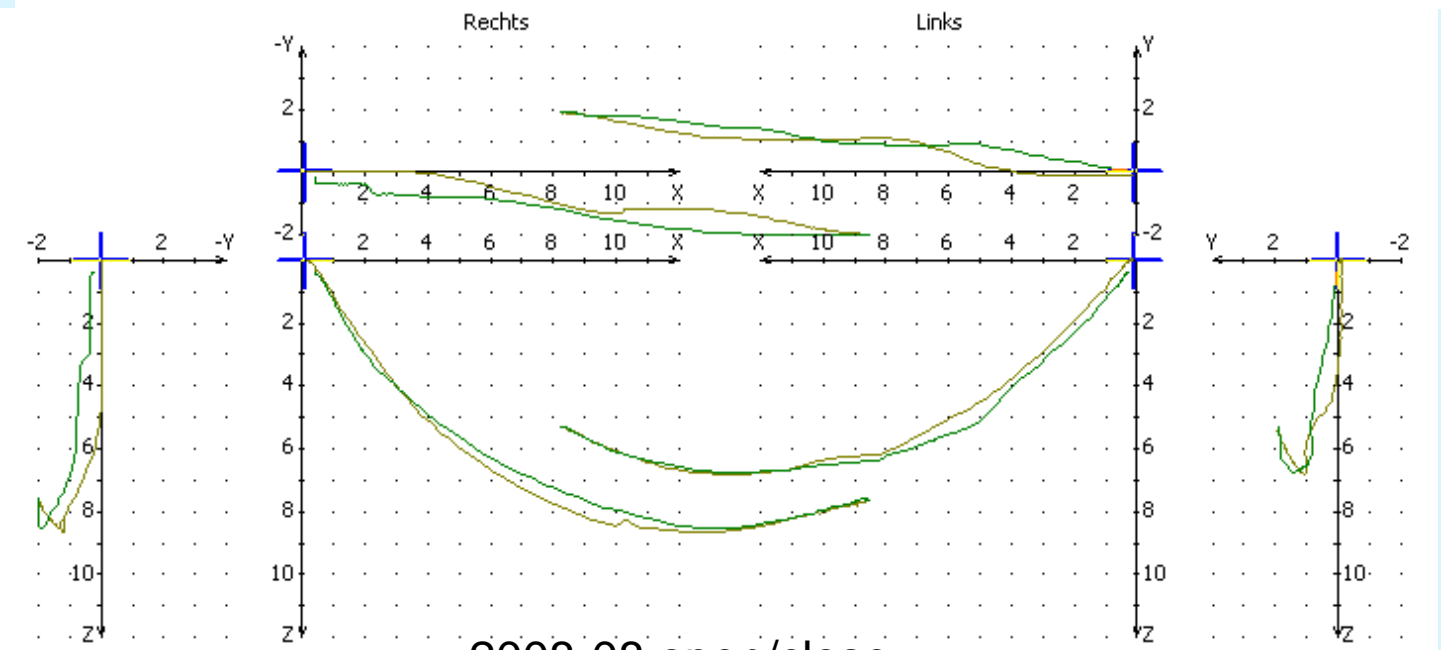
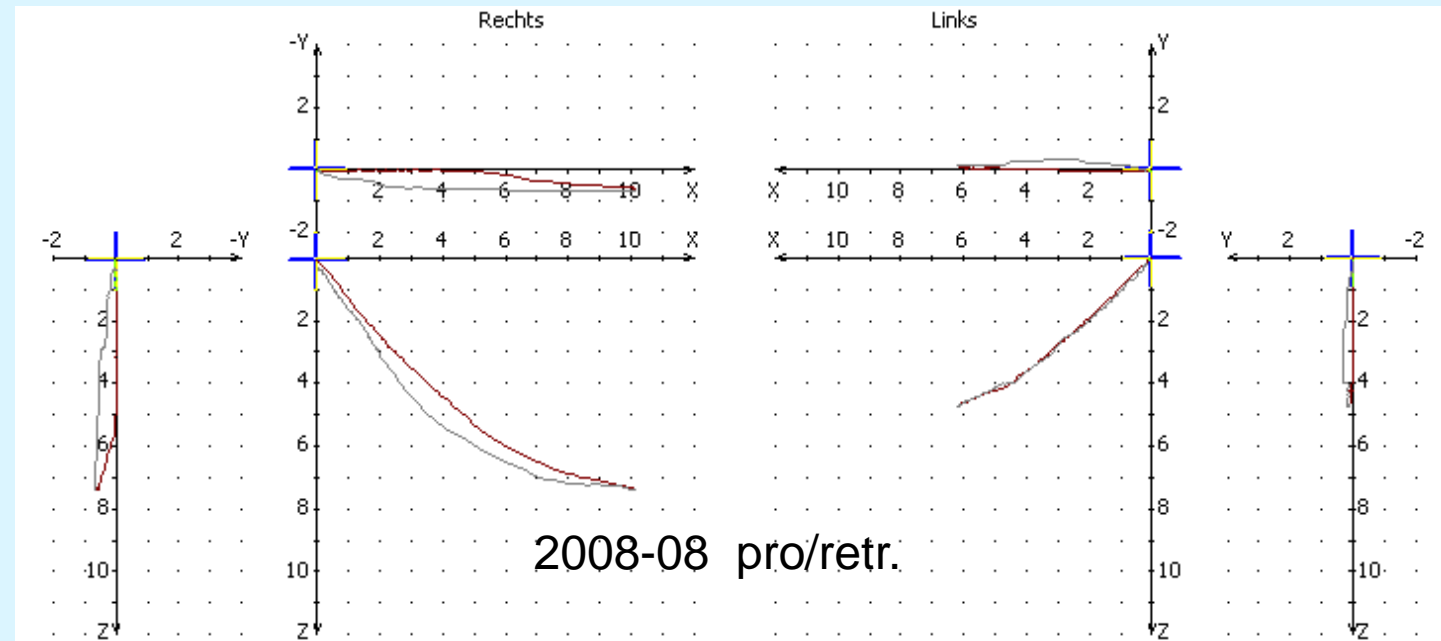


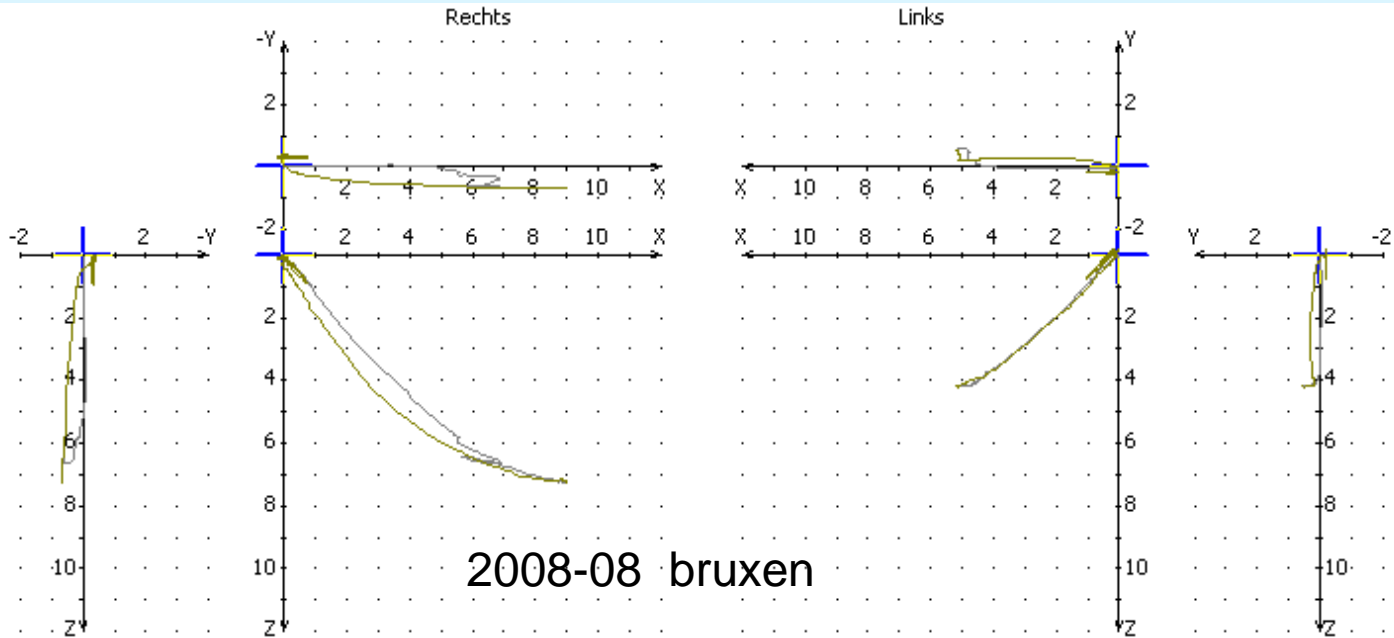
## Jarabak Skeleto-dentale

1 : 1

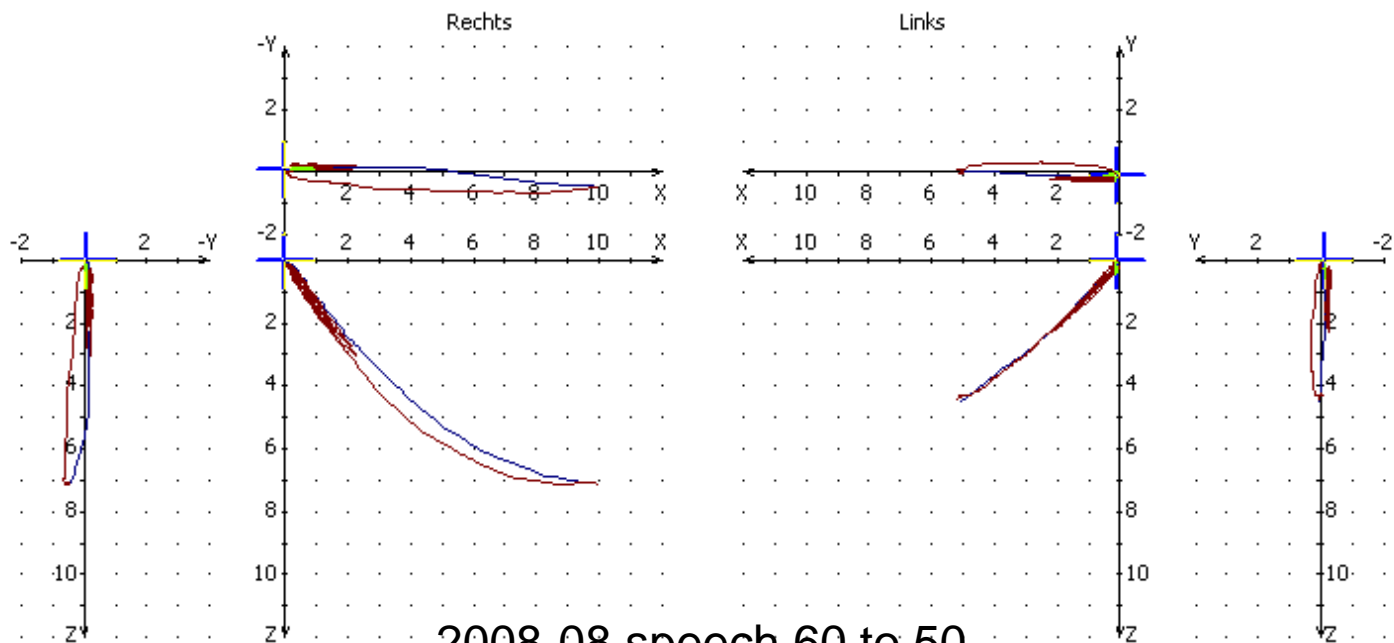


|                                     | Norm     | Wert  | Trend  |
|-------------------------------------|----------|-------|--------|
| Sattelwinkel n-s-ar                 | 123.0 °  | 119.3 | 1-*    |
| Artikulärewinkel                    | 143.0 °  | 150.9 | 2+**   |
| Gonionwinkel                        | 130.0 °  | 125.5 | 1-*    |
| Bjoerk Summe                        | 396.0 °  | 395.7 |        |
| Vordere Basislänge (Sella-Nasion)   | 72.4 mm  | 65.6  | 3-***  |
| Hintere Basislänge                  | 40.7 mm  | 35.4  | 2-**   |
| Oberer Gonionwinkel                 | 52.0 °   | 45.4  | 1-*    |
| Unterer Gonionwinkel                | 72.5 °   | 80.1  | 1+*    |
| Ramushöhe (Artikuläre-Gonion)       | 50.7 mm  | 50.2  |        |
| Korpuslänge (Gonion-Menton)         | 77.6 mm  | 65.9  | 4-***> |
| Unterkiefer / Vord.Basis            | 1.0      | 0.9   | 1-*    |
| S N A Winkel (Jarabak) s-n-ss       | 80.5 °   | 88.0  | 3+***  |
| S N B Winkel                        | 78.3 °   | 78.9  |        |
| A N B Winkel ss-n-sm (J)            | 2.2 °    | 9.1   | 3+***  |
| S N - Gonion Gnathion Winkel        | 32.6 °   | 35.7  |        |
| Gesichtstiefe (Jarabak)             | °        | 115.6 |        |
| Gesichtslänge auf Y-Achse           | 137.0 mm | 132.1 | 1-*    |
| Y-Achse zu S N                      | 67.0 °   | 71.0  | 1+*    |
| Hintergesichtshöhe                  | 81.4 mm  | 82.8  |        |
| Gesichtslängenverhältnis            | 63.5 %   | 65.7  | 1+*    |
| Fazialebene (Jarabak) s-n-pg        | 79.6 °   | 79.8  |        |
| Fazialkonvexität ss-n-pg            | 3.6 °    | 29.4  | 8+***> |
| Okklusionsebene zu Gonion Gnathion  | °        | 26.6  |        |
| Interinzisalwinkel                  | 131.3 °  | 129.9 |        |
| Unterer 1 zu Gonion-Gnathionwinkel  | 90.0 °   | 92.7  |        |
| Unterer 1 zu Gonion-Gnathionabstand | 45.0 mm  | 45.7  |        |
| Oberer 1 zu S N Winkel              | 102.0 °  | 101.7 |        |
| Oberer 1 zu Fazialebene             | 8.0 mm   | 10.0  |        |
| Unterer 1 zu Fazialebene            | 4.0 mm   | 5.9   |        |
| Ästhetische Ebene                   | -2.3 mm  | -0.6  |        |
| Oberlippe zu ästhetischer Ebene     | -2.5 mm  | -7.3  | 2-**   |

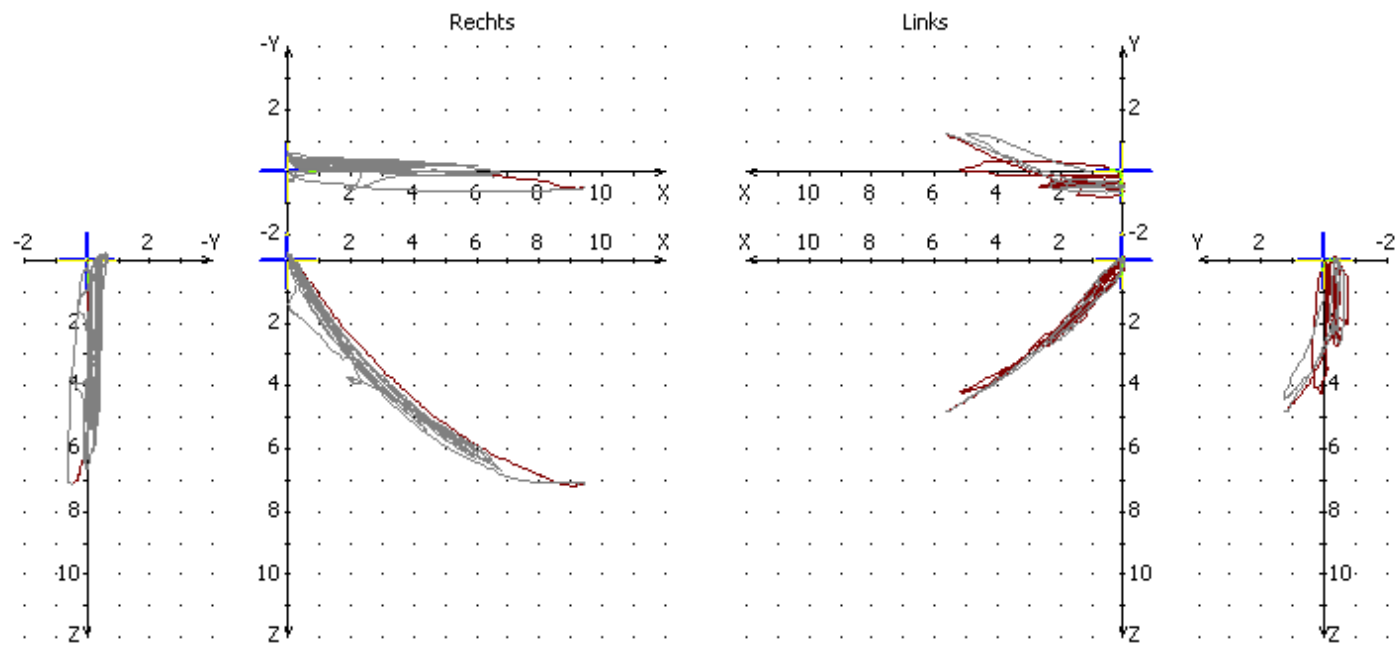


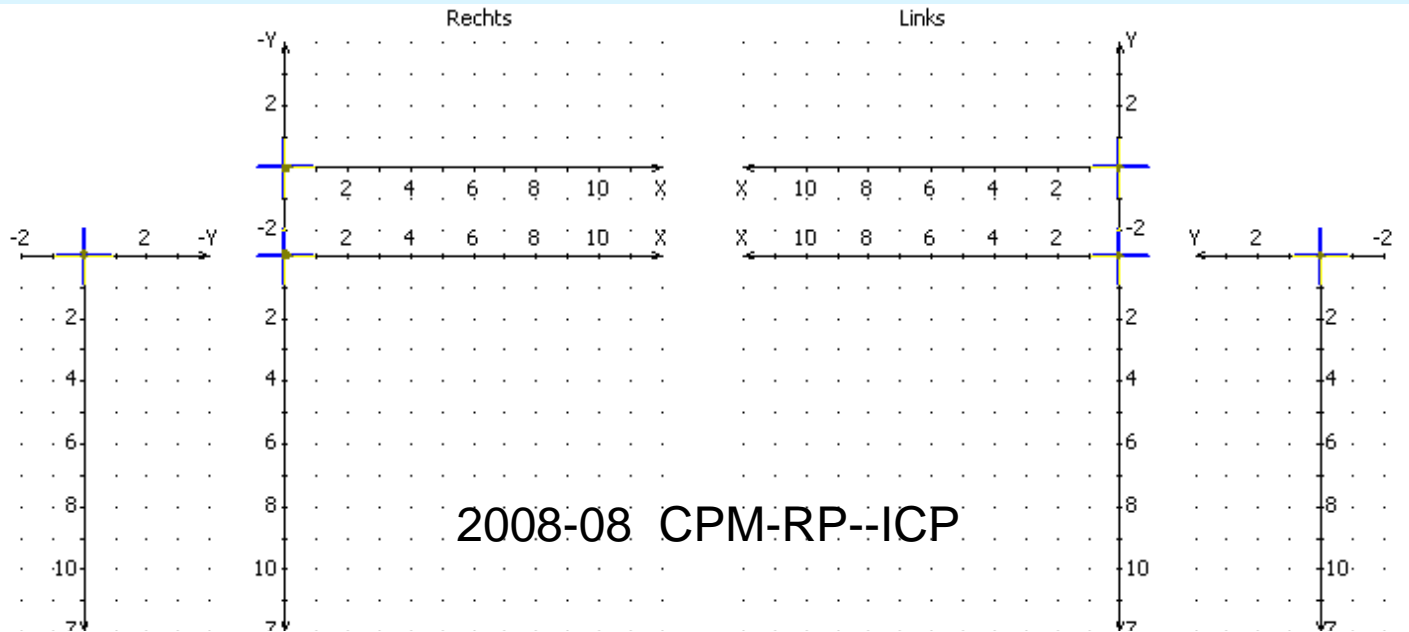


2008-08 bruxen

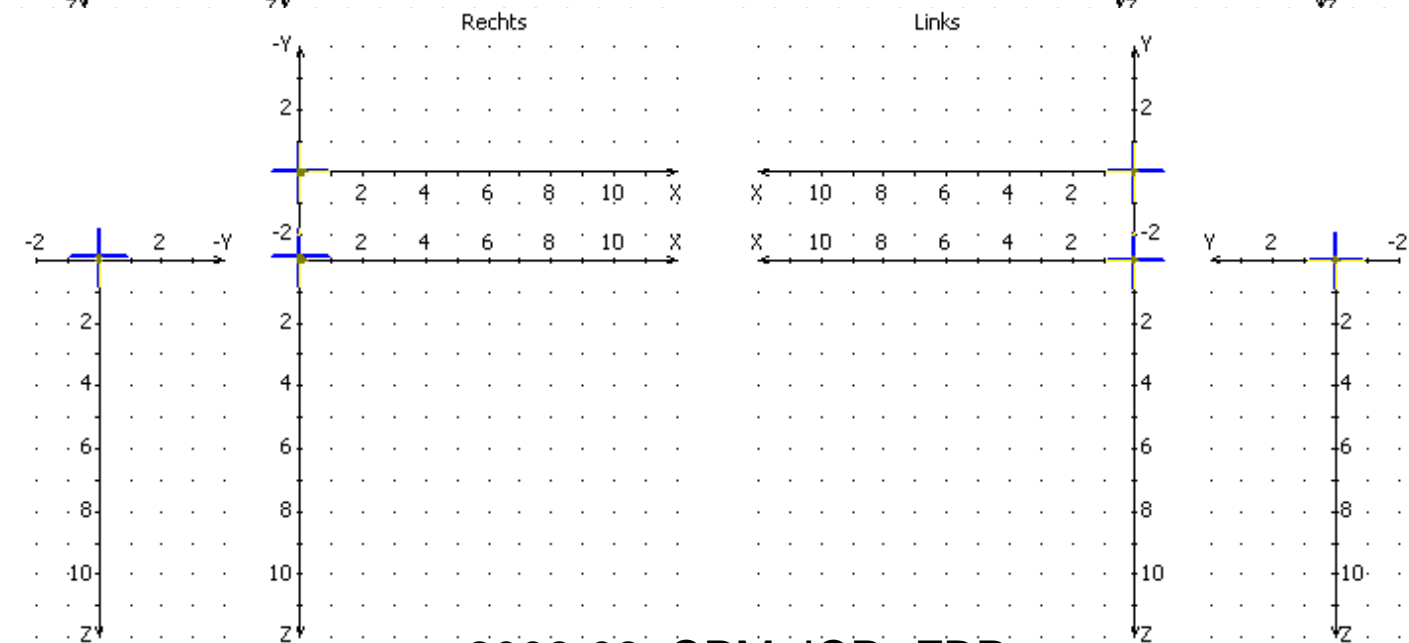


2008-08 speech 60 to 50





2008-08 CPM-RP--ICP

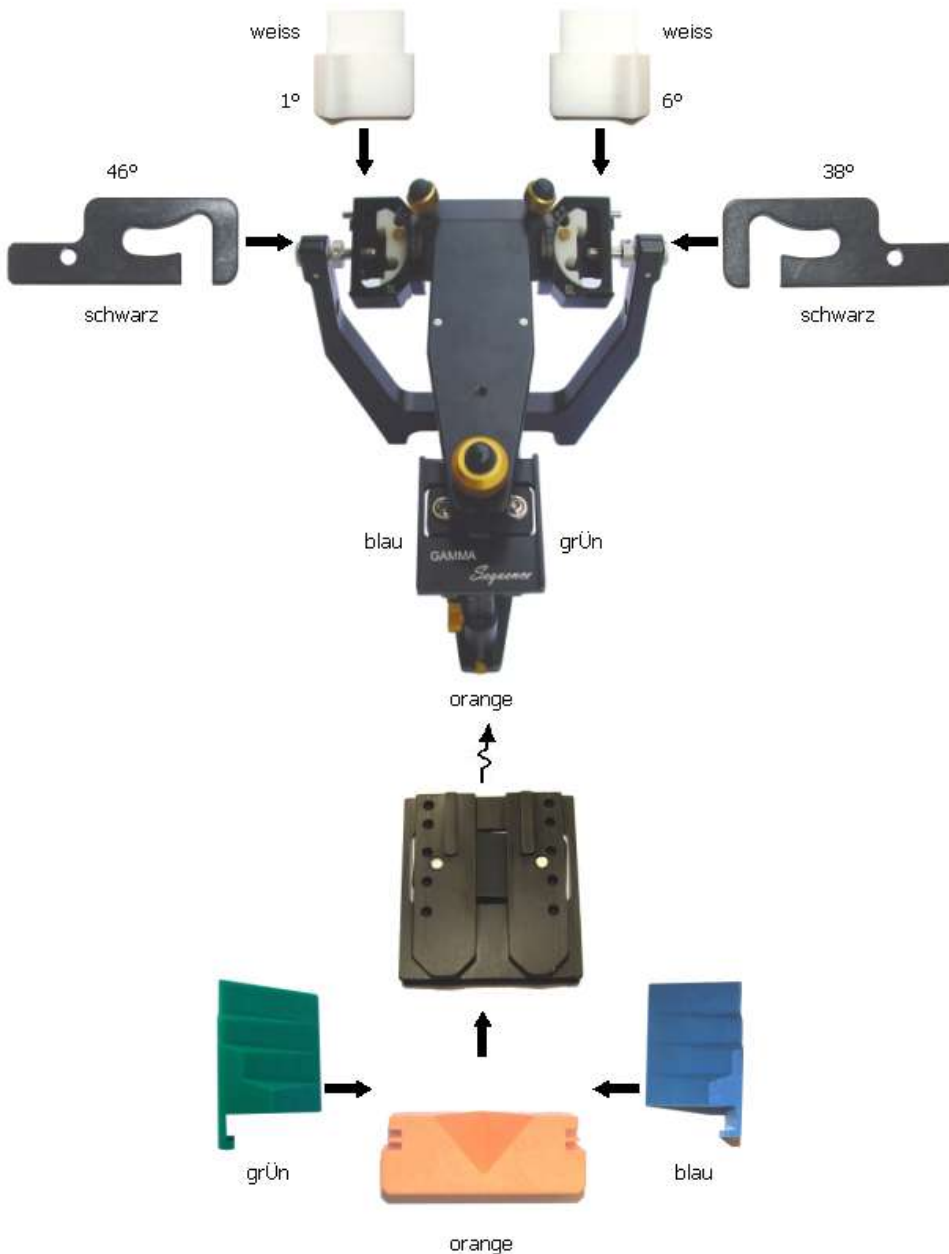


2008-08 CPM ICP--FBP



# 8.08

Berechnet für den



## CADIAX® Kurven

|           | Protrusion |       | Mediotr. rechts |       | Mediotr. links |       |
|-----------|------------|-------|-----------------|-------|----------------|-------|
|           | SKN r      | SKN l | S K N           | T K N | S K N          | T K N |
| 1.        | 49,2°      | 34,0° | 48,6°           | -0,8° | 37,9°          | -2,0° |
| 2.        | 51,4°      | 41,5° | 51,5°           | 0,0°  | 42,4°          | 4,2°  |
| 3.        | 50,7°      | 42,7° | 51,4°           | 0,0°  | 42,6°          | 6,2°  |
| 4.        | 49,6°      | 42,4° | 51,1°           | 1,3°  | 42,0°          | 7,7°  |
| 5.        | 48,9°      | 41,6° | 49,2°           | 2,4°  | 41,5°          | 9,5°  |
| 6.        | 48,8°      | 41,5° | 47,8°           | 2,9°  | 39,8°          | 11,1° |
| 8.        | 46,1°      |       | 44,4°           | 1,7°  | 37,5°          | 13,4° |
| 10.       | 41,8°      |       | 41,0°           | 0,3°  | 34,8°          | 14,2° |
| 14.       |            |       | 33,4°           | -1,1° |                |       |
| Retrusion |            |       |                 |       |                |       |
| -1.       |            |       |                 |       |                |       |
| -2.       |            |       |                 |       |                |       |

## Sagittale Kondylarbahneigung Reference® SL

| Einsatz  | Rechts  |         |         | Links   |         |        |
|----------|---------|---------|---------|---------|---------|--------|
|          | 3. mm   | 5. mm   | 10. mm  | 3. mm   | 5. mm   | 10. mm |
| Gerade   | 51°     | 50°     | 47°     | 42°     | 42°     |        |
| Gebogen  | ●45°    | ●46°    | ●49°    | ●37°    | ●38°    |        |
| Retrusiv | Schwarz | Schwarz | Schwarz | Schwarz | Schwarz |        |

## Transversale Kondylarbahneigung Reference® SL

|       | Rechts |       |        | Links |       |        |
|-------|--------|-------|--------|-------|-------|--------|
|       | 3. mm  | 5. mm | 10. mm | 3. mm | 5. mm | 10. mm |
| WEISS | ●0°    | ●1°   | ●1°    | ●3°   | ●6°   | ●10°   |
| GELB  | 0°     | 0°    | 0°     | 0°    | 0°    | 0°     |
| ROT   | 0°     | 0°    | 0°     | 0°    | 0°    | 0°     |
| BLAU  | 0°     | 0°    | 0°     | 0°    | 0°    | 0°     |

## Gamma Sequenz Inzisaltisch

Kondylographiewerte für die Berechnungen

Protrusion bei 5 mm: SKN 45,2°

Mediotrusion rechts bei 5 mm: SKN 49,2° TKN 2,4°

Mediotrusion links bei 5 mm: SKN 41,5° TKN 9,5°

Vorgeschlagene Einstellungen für den Sequenz Inzisaltisch

Protrusionselement: ORANGE

Rechtes laterales Element: BLAU

Linkes laterales Element: GRÜN

# Festsitzende Behandlung nach Sato (Brackets + MEAW-Technik)

Bracketingzeit:  
1 Jahr 2 Monate

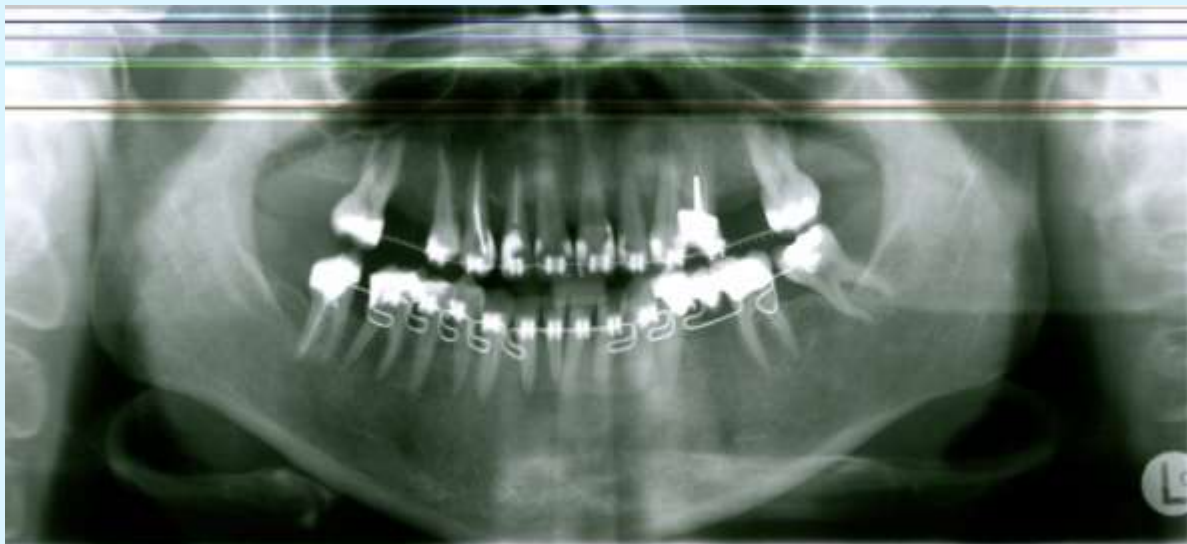


Vorher



2007-10-04

Nachher



2009-03-18

2008-08  
before prepr. KFO



2010-01  
after prepr. KFO





2008-08

before prepr. KFO



2010-01

after prepr. KFO



2008-08 before prepr. KFO



2009-10 after prepr. KFO



2010-03 after prepr. KFO and implant crowns

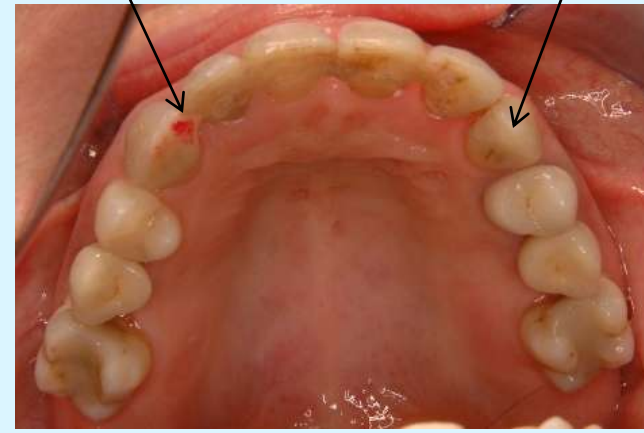




2008-08 before prepr. KFO

2009-10 after prepr. KFO

2010-01 after prepr. KFO  
and implant crowns  
13, 23 centric and excentric  
with composite





2008-08  
before prepr. KFO



2010-01  
after prepr. KFO with implants

