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Hypothetical Case Evaluation Response

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Emmett Griffiths

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Hypothetical
CASE EVALUATION
April 18, 2009

Case#

Dear Dr. _____

is 12 years of age. The maxillary space shortage was calculated at -5.0mm.

Nitko is the lateral cusp her posterior teeth are not in occlusion as she substitutes into bilateral class I. She does so in order to unload her TMJ joints. There is no doubt that once you developed her maxilla and correct the crossbite on 12 she will become a bilateral class I dental/orthodontic patient.

Nitko her left molar is class II and her right molar is half tooth class II due to the full crossbite on 12. There is also some further deflection as a result of 12 being lingually displaced along with the V-shaped maxilla and slight *posteriorly* deflection. 15 is mainly rotated but it should self-correct along with final bracket therapy since you are performing 2nd molar replacement.

Her maxilla would benefit from the reciprocal force of an upper lingual.

Your goal is to develop the premaxilla improving A-point prior to performing 2nd molar replacement in the maxillary arch. The prognosis for anterior tooth eruption would be great following 2nd molar replacement. *It is far less traumatic to remove 2nd molars than severely impacted relatives with a lot of attention if it is more cost effective for the family. Inform before you perform.*

Treatment success is totally dependent upon patient cooperation. Effect = Results.

Special protocol for 2nd molar replacement should be strictly adhered to in order to develop the premaxilla prior to distalizing the upper posterior quadrants.

Effect: Immediately perform LOWER 2nd molar replacement.

NO LOWER APPLIANCE REQUIRED SINCE THE LOWER ARCHES NOT CROWDED.

The laboratory will crown the cusp in BILATERAL, class I ideal vertical in order to encourage the maxilla to substitute into class I as the maxilla is developed.

...2

Thank you for your continued support. Celebrating 36 years of service (1972-2008).
In response to your request, the laboratory has evaluated and analyzed your study for treatment options to best address the patient's condition in a timely manner. The above results of suggested treatment options should assist the doctor in providing the best care for the patient. The laboratory will provide the patient with a detailed treatment plan and provide the patient with a detailed cost breakdown. The laboratory is committed to providing the highest quality of service and customer care. The laboratory is committed to providing the highest quality of service and customer care. The laboratory is committed to providing the highest quality of service and customer care. All requests are handled by our highly trained laboratory staff.

Benefits of a Case Evaluation

- More than **35 YEARS of experience** expressed in each evaluation.
- Avoid the **HASSLE** of telephone communication.
- Received a **TYPED** evaluation response specific to your patient for **REVIEW** at your leisure.
- Based on the records provided, each response may include a suggested **Phase I, II and III** treatment including **Retention**.

Complete records are necessary
for each orthodontic patient
and required for an informative
Case Evaluation.

“Ideal” Records Required

1. Extraoral Photographs:

- Frontal: Lips at rest & smiling
- Lateral: Lips at rest & smiling
- Airway and chin

2. Intraoral in centric:

- Occlusal - Mx & Md
- Buccal - Left & Right
- Frontal

3. Diagnostic Models:

- Frontal/Left/Right in Centric:
 - molar relationship indicated with blue line
- Frontal/Left/Right in as if Class I position:
 - indicated by a red line
- Models on their back

4. Radiographs:

- Lateral, panorex
- Frontal & Transcranials
 - (both optional)

5. Cephalometric Analysis:

- Ceph Tracing
- Steiner/Sassouni Summary

6. Other:

- Appliance (s) etc.

7. Completed Pre-Evaluation Questionnaire (PEQ)

(take a picture of the top and bottom of the form ensuring it is legible or scan the complete document and include in the WinZip file.)

The “Case Evaluation” service is only available to clients of Rideau Orthodontic Mfg. Ltd.

Doctors requesting this service must:

- Have an understanding of Functional Jaw Orthopedics.
- Studied from Drs. Witzig, Bean, Broadbent, Bowbeer, Stack, Clark etc.
- Should read Volume I and II of the Witzig/Spahl Textbooks

How long before I receive a response?

- If all the necessary records required are received, you can expect a written response within 3-7 business days.
- A minimal fee will apply for each response.
- Please contact the laboratory for further details.

Ongoing Case Evaluation

Please always include all prior correspondence and records to assist in subsequent Case Evaluations.

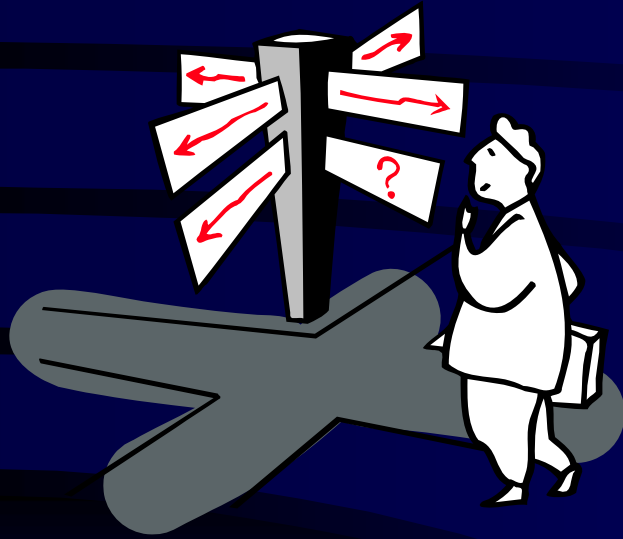
Communication Options

- In order to simplify communication between laboratory and doctor, please select **ONE OPTION** to send your records.
 - Option 1: Send all records to the laboratory for digitizing.
 - Option 2: Send all images of the records by e-mail using protocol.
- Patient **records sent to the laboratory** will receive a **faxed response**.
- Patient **records sent by e-mail** will receive an **e-mail response**.
- Please **DO NOT divide records** by sending some to the laboratory and others by e-mail since this complicates the process.
- **Records must be sent together using ONE METHOD.**

DIAGNOSTIC RECORDS

Diagnosis is the most important part of treatment.

Do you know the patient's?



- Growth Direction
- Facial Asymmetry
- Maxilla Position
- Dental Development (Normal?)
- Underlying medical condition(s)

You must know the answers in order to diagnose and provide a treatment plan based on RECORDS!

PRE-EVALUATION QUESTIONNAIRE

- The Pre-Evaluation Questionnaire form must be completed to receive an informative Case Evaluation.
- An excellent diagnostic record summary.

**Rideau
Orthodontic
Mfg. Ltd.
1-800-267-7982**

Pre-Evaluation Questionnaire

PLEASE COMPLETE WITH EVERY CASE EVALUATION REQUEST
Please discard **all** previous forms. Please use a **black pen** and **print** when completing this form.
 This service is only available to customers of Rideau Orthodontic Mfg. Ltd.

Print Dr's Name: _____
 Print Patient's Name: _____
 Case Information: New Case Ongoing Case

Patient Information
 Patient's Age: _____ D.O.B.: (dd/mm/yy) _____
 Gender: Male Female Height _____
 Race: White Black Chinese
 Indian Asian Other: _____
*This information is required in order to generate a computerized cephalometric analysis.

Dental Records Provided
 Casts: Mix Mid Pre-Treatment Current
 Wax Bite: Centric Construction
 Photographs: Frontal Lateral Airway (vest)
 Intraoral Asymmetrical (oes)
 X-rays: Lateral Panorax TMJ
 Frontal Tracings Other _____
 Cephalometric Tracing Required?: No Yes

Model Classification
 Patient's Left: Class I Class II Class III
 Full tooth 1/2 Tooth
 Patient's Right: Class I Class II Class III
 Full Tooth 1/2 Tooth
 Arch Analysis (Witzig/Pouts Index): +/- _____ mm
 Overjet?: No Yes _____ mm
 Overbite?: No Yes _____ %

Airway Examination
 Mouth breather: No Yes Snores: No Yes
 Are the nostrils well developed?: No Yes
 Darkness under the eyes?: No Yes
 Lip Seal: Good Poor Weak Lips?: No Yes
 Habits?: Tongue-thrust Thumb-sucking

Temporomandibular Joint R _____ Deviation _____ L _____
 Headaches: No Yes
 Medicated: No Yes
 Clicking: No Yes: L R
 Popping: No Yes: L R
 Locking: No Yes: L R
 Max Opening: _____ mm
 Trauma: MVA No Yes

Lateral Extension
 12mm Left and Right
 Max Opening:
 Adult 50 ± 3mm & Child: 54 ± 2mm

Facial Classification
 Facial Profile: Class I Class II Class III
 If class III, is their class III in family?: No Yes
 Facial Height: Ideal Long Short

Visit www.orthodontic.ca

Cranial Evaluation
 Place a tongue depressor across the arches over the 1st bicuspid area. Photograph **frontal image** of the patient while standing in front of a photo grid.
 Do you observe asymmetries of the:
 Dental Arches: No Yes-Explain: _____
 Ear Level: No Yes-Explain: _____
 Eye Level: No Yes-Explain: _____
 Shoulder Level: No Yes-Explain: _____
 Forward Head Posture?: No Yes
 Mandibular Plane Angle: Normal Steep
 Growth Direction: Normal Deep Open
 Maxilla Position: Normal Posterior Anterior

Treatment Prognosis
 If Class II or Class III, what problems exist if the casts are held in ideal Class I relationship?
 Examples: Constricted Mx Incisal Deflection
 Other: _____
 Prognosis of 8's: Good Poor (please explain) _____

Congenitally missing teeth? No Yes
 Dental Hygiene: Excellent Good Poor

Additional Information
 What is/are the patient's concern(s)? _____

 Do you feel the patient is motivated: Yes No

 What is/are the parent's concern(s)? _____

Financial Situation: Excellent Good Fair Poor
Your Treatment Objectives
 Functional/Fixed Fixed

Dr.'s E-mail address: _____
 Office Telephone: (____) _____-_____
 Office Fax: (____) _____-_____

Diagnostic Records may include...

- Study Casts (Mx & Md)
- Centric Wax Bite
- Extraoral Photography
 - Photo-Grid
- Intraoral Photography
 - Mouth Mirrors
- Range of Motion
 - ROM Ruler
- Arch Analysis
 - Ortho-Grid and Space Shortage Analysis
- Radiographs
 - Lateral Ceph with soft tissue & Panorex
- Cephalometric Analysis
- Transcranials
 - TMJD Treatment
- A completed TMJD Questionnaire by patient
- Patient/Family History
- Medical History

Diagnostic Models

Images must be taken
without the wax bite in position
and views as demonstrated.

Frontal in Centric and As If Class I Position & open on their back

Centric

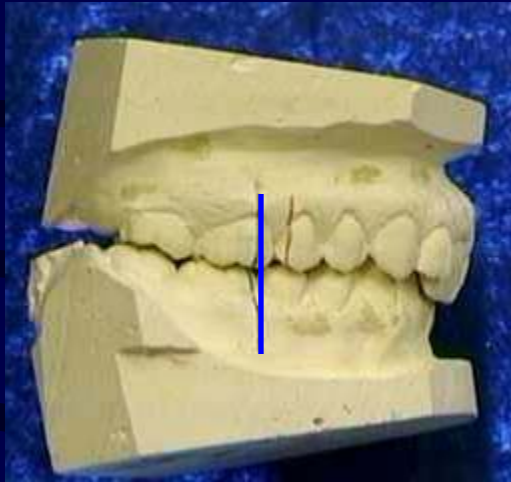


As if
Class I

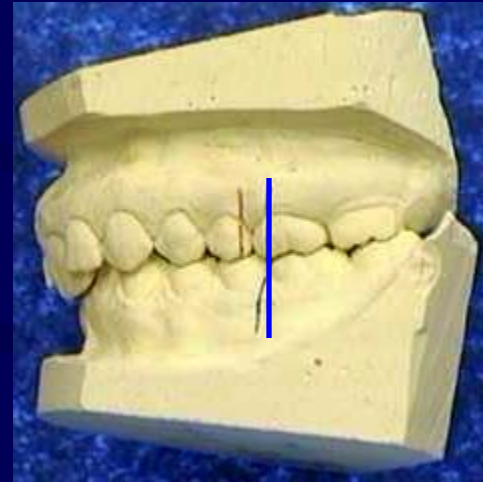


Centric & As if Class I Position Right/Frontal/Left

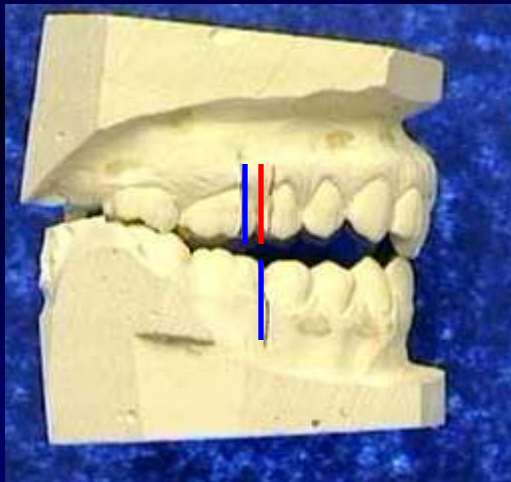
Centric
in blue



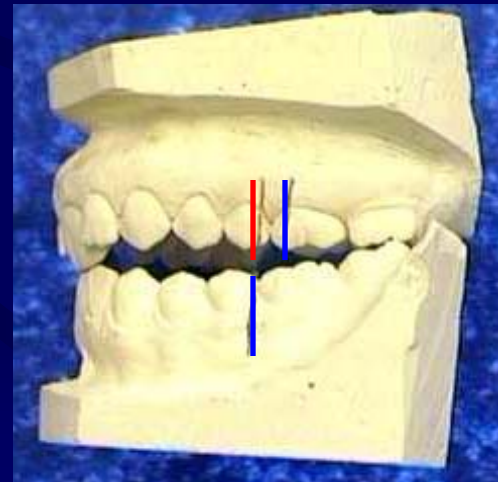
Centric
in blue



As if
Class I
in red



As if
Class I
in red



Extra-oral Photography

The patient's frontal and lateral images are best taken with a photography grid as a backdrop.

Please include the patient's shoulders and down as far as the underarms.

Frontal Photographs

Lips at rest and patient smiling.

Ears and shoulders must be visible.



Lateral Photographs

Lips at rest and smiling.

Ears and shoulders must be visible.

Always pull hair back to view ears and neck



Intra-oral Photographs

The use of cheek and/or lip retractors along with mouth mirrors provide exceptional diagnostic intra-oral photography.

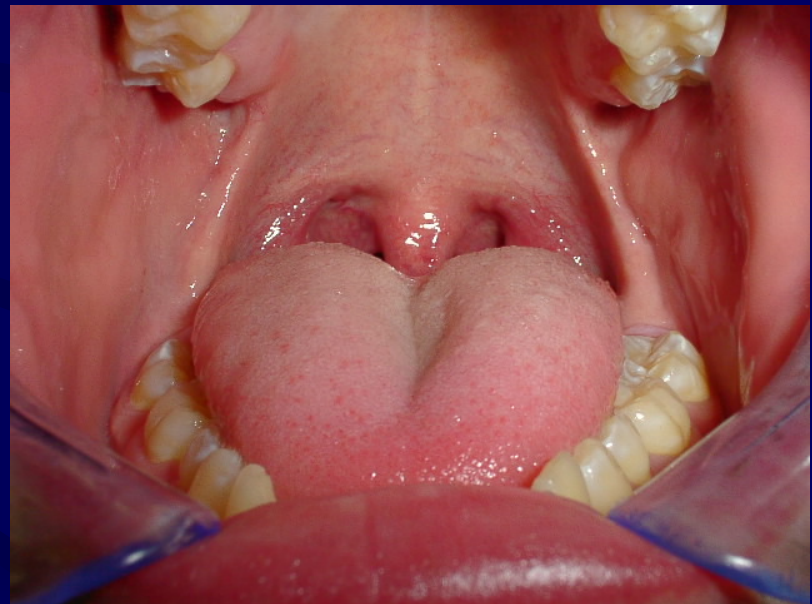
Intraoral Photographs



Molar region
must be visible

Trauma & Airway Considerations

- Observe for blockage or restricted opening of the nostrils.
- Observe for trauma to the chin.

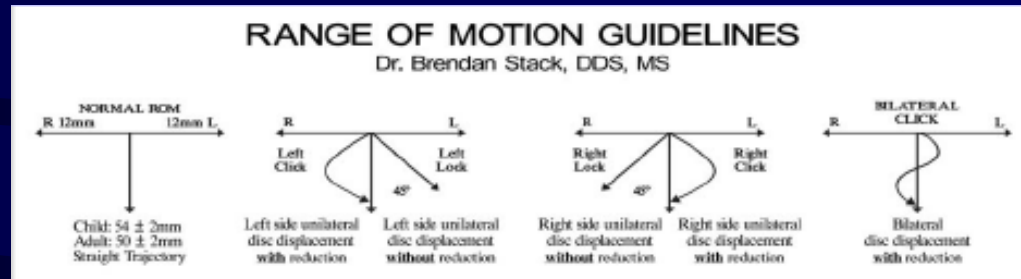
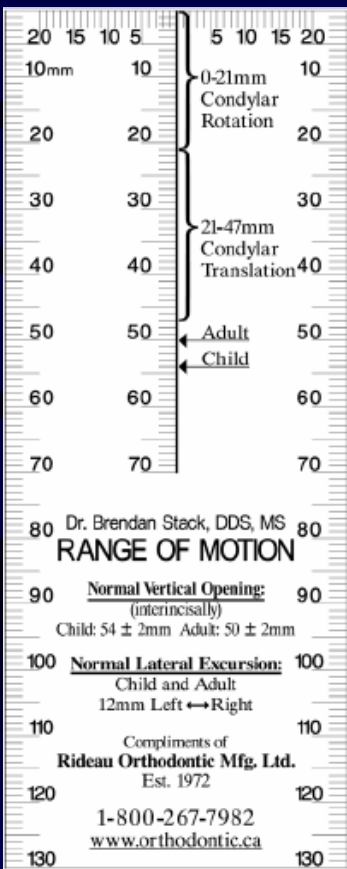


- Observe for inflammation.
- Treatment may include a visit to the E.N.T. specialist.

Deep Palatal Vault - Airway?

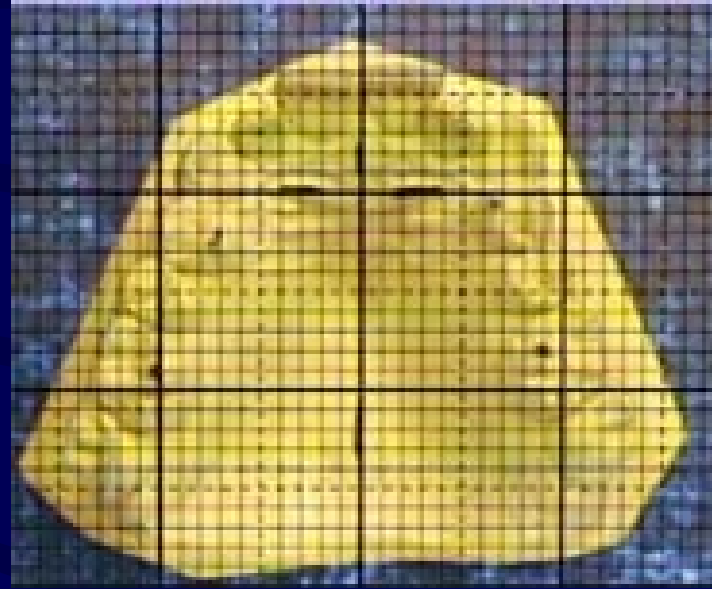


Range of Motion



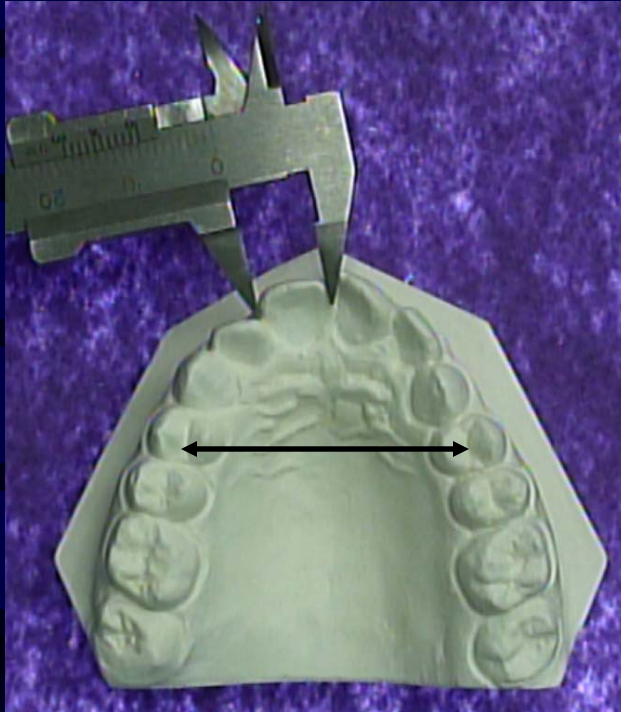
Document the patient's maximum opening, lateral excursion, clinical deviation, TMJ clicking/popping.

Ortho-Grid



Document maxillary arch asymmetries.

Space Shortage Arch Analysis



Central	<u>8.8</u>		
Central	<u>8.8</u>		
Lateral	<u>7.5</u>		
Lateral	<u>7.7</u>		
Total	<u>32.8</u>	+ 8 =	<u>40.8</u> Maxillary Bicuspid Measurement for Adequate Space
			<u>33.0</u> Actual Measurement
			<u>- 7.8</u> Shortage of Space

1 - 2 Shortage	- Minor Crowding
4 - 6 Shortage	- Crowding is a big problem
<u>7 - 12 Shortage</u>	- Very Severe Crowding

- Quick and easy calculation using the maxillary model to obtain the space shortage or lack of crowding measurement.
 - Measurements are taken with a caliper and documented.

Radiograph Images

X-rays must be of diagnostic quality.

Key landmarks must be visible.

Place the x-rays on a light table
when capturing images for an
e-response.

Lateral X-Ray

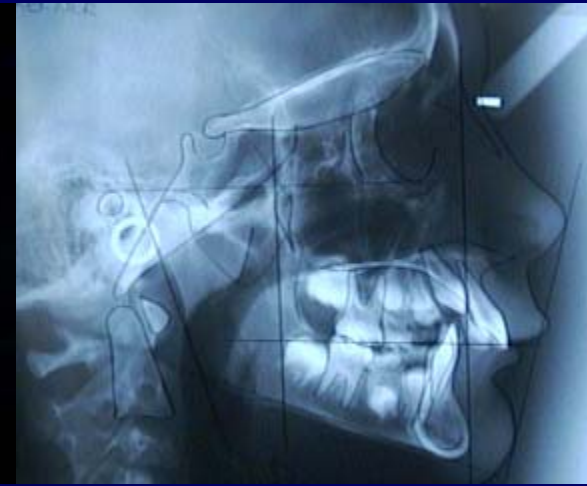
Always ask the patient to swallow and put their back teeth together when taking a lateral ceph.



Posterior teeth
are not in occlusion.



Soft tissue
is not visible.



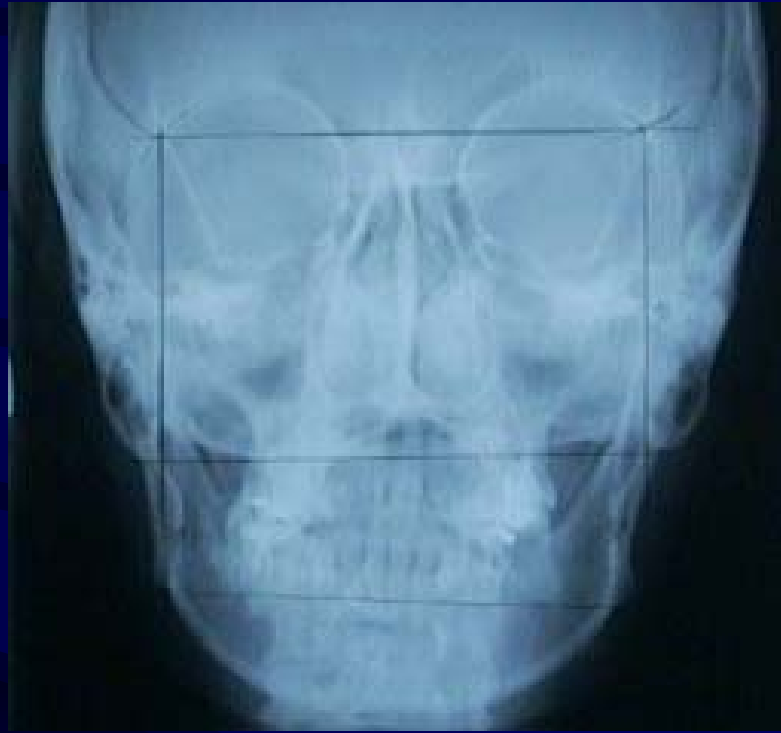
Soft tissue and key
landmarks are
visible.

Panorex



The presence and prognosis for eruption of the wisdom teeth can **ONLY** be verified with a Panorex.

Frontal X-Ray



Observe for cranial asymmetries.

Cephalometric Analysis

Rideau Orthodontic Mfg. Ltd. provides a computer digitized analysis offering the

Sassouni Plus - Functional

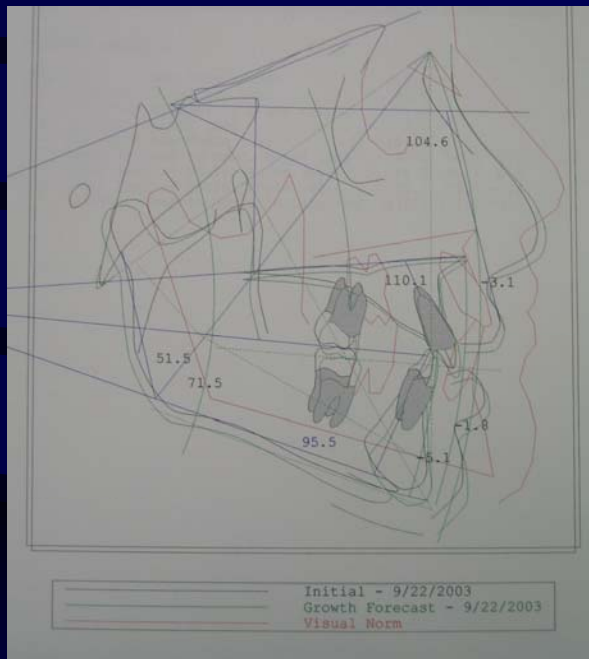
Steiner - Traditional

Numerous other analysis are available upon request.

It is imperative to make notes on the summaries to document they have been reviewed.

Cephalometric Analysis

Sassouni Plus - Functional



Three-color tracing showing actual, normal and growth forecast.

FACIAL PATTERN

Mild Dolichofacial

HORIZONTAL CONSIDERATIONS

Mild Overjet
Skeletal Class II
due to the maxilla

VERTICAL CONSIDERATIONS

Deep Bite

TRANSVERSE CONSIDERATIONS

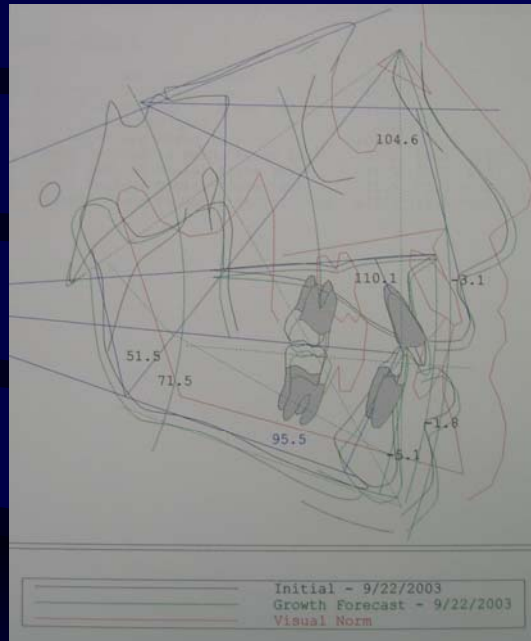
SYMMETRY CONSIDERATIONS

OTHER CONSIDERATIONS

“Summary Page” of analysis

Cephalometric Analysis

Steiner - Traditional



Three-color tracing showing actual, normal and growth forecast

Position of the Maxilla.

Growth Direction

MEASUREMENT	DESCRIPTION
9/22/2003	
Skeletal AP	Class II Tendency
Skeletal Vertical	Deep Bite
Upper Incisor	Retrusive
Lower Incisor	Normal
Growth Direction	Normal
Maxilla Length	Normal
Maxilla Position	Posterior
Upper 6 Position	Anterior
Mandible Length	Short Anterior
Mandible Position	Posterior
Upper Lip Angle	Normal

“Summary Page” of analysis

Transcranials for TMJD Patients

Right/Left - Open/Closed



Hand trace the head of the condyle and Fossa.

TMJ Health Questionnaire

Have the patient complete a
TMJ Health Questionnaire
if TMJD symptoms are expressed
and/or confirmed at
initial examination.

American Academy of Craniofacial Pain

In severe TMJD cases you must determine
the condition of the disk.

Anterior positioning alone
may not recapture the disk.

Surgical intervention may be a requirement to
reposition or repair the disk.

Dr. Brendan Stack, DDS, MS

GUIDELINES

August 2002*

Diagnosis & Management of Temporomandibular Disorders

*(a reprint of those issued in November 1995)

The Guidelines of the Royal College of Dental Surgeons of Ontario contain practice parameters and standards which should be considered by all Ontario dentists in the care of their patients. It is important to note that these Guidelines may be used by the College or other bodies in determining whether appropriate standards of practice and professional responsibilities have been maintained.

INTRODUCTION

Temporomandibular disorders (TMD) are a poorly understood complex of ailments. It is generally accepted that the etiology is most often multifactorial, with various predisposing, precipitating and perpetuating factors.

At present, there is no evidence to support the hypothesis that these conditions are always progressive, and there is considerable evidence supporting the concept that some often remit without or despite treatment. Therefore, the need for treatment should be carefully considered and weighed in this light. A decision to treat and how to treat should be based on a detailed clinical history, a careful clinical examination, and centred on conservative, reversible therapies.

The guiding principle of any treatment must be "primum non nocere" or, freely translated, "above all, do no harm." Irreversible procedures should only be considered after attempts at treatment with more conservative measures have failed, and only if the severity and/or persistence of the patient's symptoms warrant it. The relative risks and benefits of the treatment versus the untreated symptoms must always be weighed. Before any procedure that may permanently alter the patient's dentition or jaw relationships is initiated, the patient must be well informed of the risks, and therefore, be a party to any decision to proceed.

Re-evaluation during the course of treatment is equally important to ensure that the course is appropriate.



Royal College of
Dental Surgeons of Ontario
Ensuring Continued Trust

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August 2002

GUIDELINES

February 2006*

DIAGNOSIS & MANAGEMENT OF TEMPOROMANDIBULAR DISORDERS & RELATED MUSCULOSKELETAL DISORDERS

*(replacing those originally issued in November 1995 and reprinted in August 2002)

The Guidelines of the Royal College of Dental Surgeons of Ontario contain practice parameters and standards which should be considered by all Ontario dentists in the care of their patients. It is important to note that these Guidelines may be used by the College or other bodies in determining whether appropriate standards of practice and professional responsibilities have been maintained.

PREAMBLE

Temporomandibular disorders (TMD) are a complex of ailments involving the temporomandibular joints themselves and associated structures. Although most are poorly understood, it is generally accepted that the aetiology is most often multifactorial, with various predisposing, precipitating and perpetuating factors. At present, there is no evidence to support the hypothesis that these conditions are always progressive, and there is considerable evidence supporting the concept that, in many cases, clinical remission occurs without treatment. Therefore, the need for and the nature of treatment should be considered carefully and weighed in this light. A decision to treat and how to treat should be based on a detailed and relevant clinical history, a careful clinical examination, and centred on conservative, reversible therapies.

It must be recognized that TMD symptoms may mimic other pain conditions and *vice versa*, and therefore, it is critical for the practitioner to have an understanding of other causes of orofacial pain in order to diagnose and treat TMD successfully. This guideline, though, is not meant to serve as an exhaustive treatise on diagnostic and treatment strategies for all forms of orofacial pain and focuses on the diagnosis and management of TMD. Other causes of facial pain not originating from the temporomandibular apparatus may need to be considered.



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February 2006



Prior to Treatment of a Patient with TMJD Symptoms and/or Pain

Instruct the patient to have a complete medical examination prior to TMJD treatment to ensure there are no underlying symptoms relating to other diseases.

MEDICATION?

Ask your patients if they are taking any medication for headaches/pain etc. Otherwise, they may not inform you.



RE: Standard of Care - Orthodontic Pre/Interim/Post Treatment Records

You are required by your governing board to take records as required by an orthodontist when providing Orthodontic Treatment.

**The RCDSO is the licensing body that sets the standards for all dentists in Ontario
(General Practitioners and Specialists)**

**Dr. Daniel Pollit D.D.S, Dip. Ortho., M.Sc.
CAO Webmaster - August 3, 2007 (e-mail)**

PROTECT YOURSELF
KEEP GOOD RECORDS

Be
INFORMED
before you
PERFORM!

Analysis of Diagnostic Models

What problems exist when the
patient is placed in the
AS IF CLASS I
cuspid/molar relationship?

Dr. Donald Woodside, U of T

“As If Position”

Centric



As if
Class I



OBSERVATION

Class II Division II
Constricted Maxilla
Retrusive Upper Incisors
Deep Bite

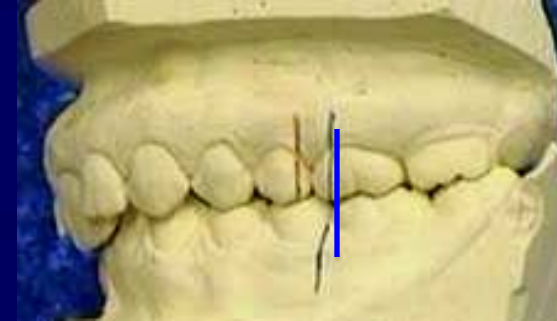
TX REQUIREMENTS

Maxillary 3-D Expansion
Increase Vertical
Correct A-P

Centric & As if Class I Position

OBSERVATIONS

- Class II Division II
- Retrusive Upper incisors
- Mandibular Deflection

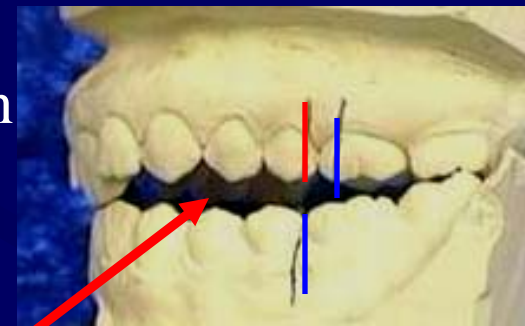
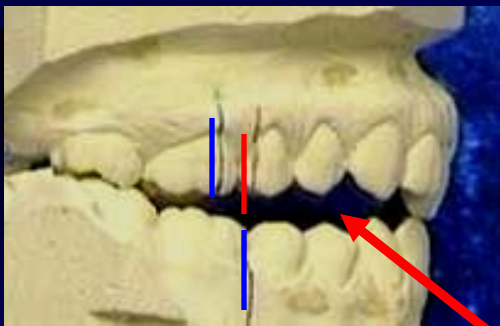


The Maxilla is the Criminal – The Victim is the Mandible

TX REQUIREMENTS

- Anterior/Posterior Correction
- Development of the Maxilla
- Torque the upper centrals
- Increase Vertical

SPACE OF LIFE!



Pre-Treatment Considerations

- Chronological/Dental Age
- Dental IQ
- TMJD?
- Airway Concerns
- Soft Tissue Evaluation
- Facial Profile
- Range of Motion
- Lateral Excursion
- Deviation opening/closing
- **Wear Facets**
- **Location of the Maxilla**
- Dental Relationship
(Molar & Cuspid)
- Severity of Crowding
- Compliance
- Medical Condition(s)

Treatment Approach

1. Informed Consent

2. Records

3. Respect the TMJ

4. Form Before Function:

- Can the patient function in Class I?

5. Alleviate the Crowding:

- Functional, Fixed, 2nd Molar Replacement, Slenderizing, other....

6. Orthopedic Treatment

- A-P Correction from Class II/III to I.
- Combined Fixed with Functional?

7. Straightwire Treatment:

- Good archform and A-P

8. Retention:

- Dependant upon severity of initial problem, airway, lip seal and age of patient.

APPLIANCE SELECTION

Fixed or Functional?

What appliance is required to address the pre-treatment concerns?

Pre-Treatment Concern	Appliance ??
Deficient Pre-Maxilla	Anterior Sagittal
Transverse Development	Schwartz Plate
Deep Bite	<u>Incorporate:</u> Occlusal Coverage Anterior Bite Plane
Severely Crowded	Rapid Palatal Expansion (RPE)
A-P Correction	Twin Block Bionator
Accommodation of Brackets	Tripoding Rick-a-Nator

Functional Jaw Orthopedics Utilizes Acrylic Appliances

PRIOR TO FIXED BRACKET THERAPY:

Let the PATIENT prepare the arches,
eliminate the crowding and correct the
anterior/posterior (A-P) discrepancy

EFFORT = RESULTS!!



E-Response Protocol

e-Case Evaluation Responses

- Send all requests by e-mail to:
orthodontic@orthodontic.ca
- Capture images of the **Pre-Evaluation Questionnaire** (top & bottom portion) and attach to your message along with the **patient's digital images in .jpg format.**
- **COMPRESS** images by selecting ALL .JPG IMAGES and ZIP using WinZip for quick transmission.

How do I WinZip files before I e-mail?

You must have WinZip Software.

A trial version can be downloaded from

http://www.winzip.com/prod_down.htm

Once you have the Software

- Locate the image file for the patient.
- Select/highlight **ALL** the files and/or images you would like to include in the e-mail.
- Right click the mouse and select the **ZIP and E-mail option**.
- All records must be WinZipped into **one file less than 1.5MB in size** or our system will reject the transmission due to file size.
- Send e-mail to orthodontic@orthodontic.ca.
- Please allow 3-7 days for an e-mail response.

Preventing Large File Sizes

Problem:

Today you can purchase a digital camera that can produce an single image size of 10MB or greater if the setting is at the **Highest Resolution**. If you were to combine 10-15 images into one file, the e-mail would exceed the minimum 1.5MB file size.

Resolution:

Reduce the resolution on your camera in order to take the necessary picture required for a Case evaluation. All images could then be WinZipped into a single file of less than 1.5MB in size.

Disclaimer

A Hypothetical Case Evaluation Response is provided upon request under a doctor's prescription.

A Hypothetical Case Evaluation is put to you solely for consideration by you as a health professional and not intended to be relied upon. The remarks are suggested theoretical therapy options derived from the limited records provided by you and from no other source and do not constitute a diagnosis, recommended treatment or assessment for your patient. You have physically examined your patient and you are the certified and licensed dental practitioner and are solely responsible for the treatment and care of your patient.

The Hypothetical Case Evaluation is merely an educational exercise to assist you in your overall practice development.

The Hypothetical Case Evaluation is only available to clients of Rideau Orthodontic Mfg. Ltd.

E&OE