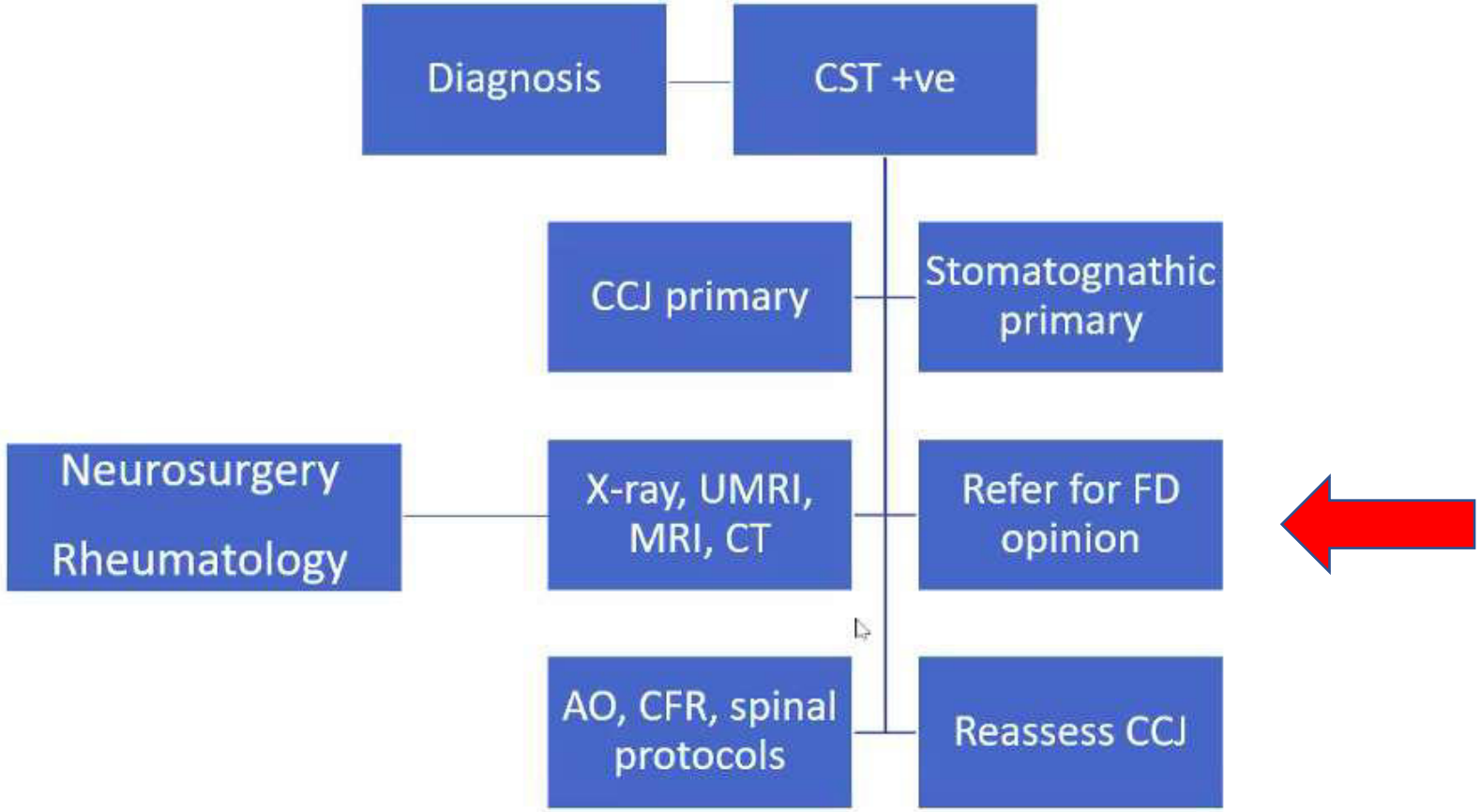
FIXING THE BITE

The diagnosis and treatment of dental occlusal disorders

AONM 2021

Management CCS



Dental Occlusal Interferences & Dysfunction

CAUSE Repetative strains in JAWS, SKULL & UPPER NECK

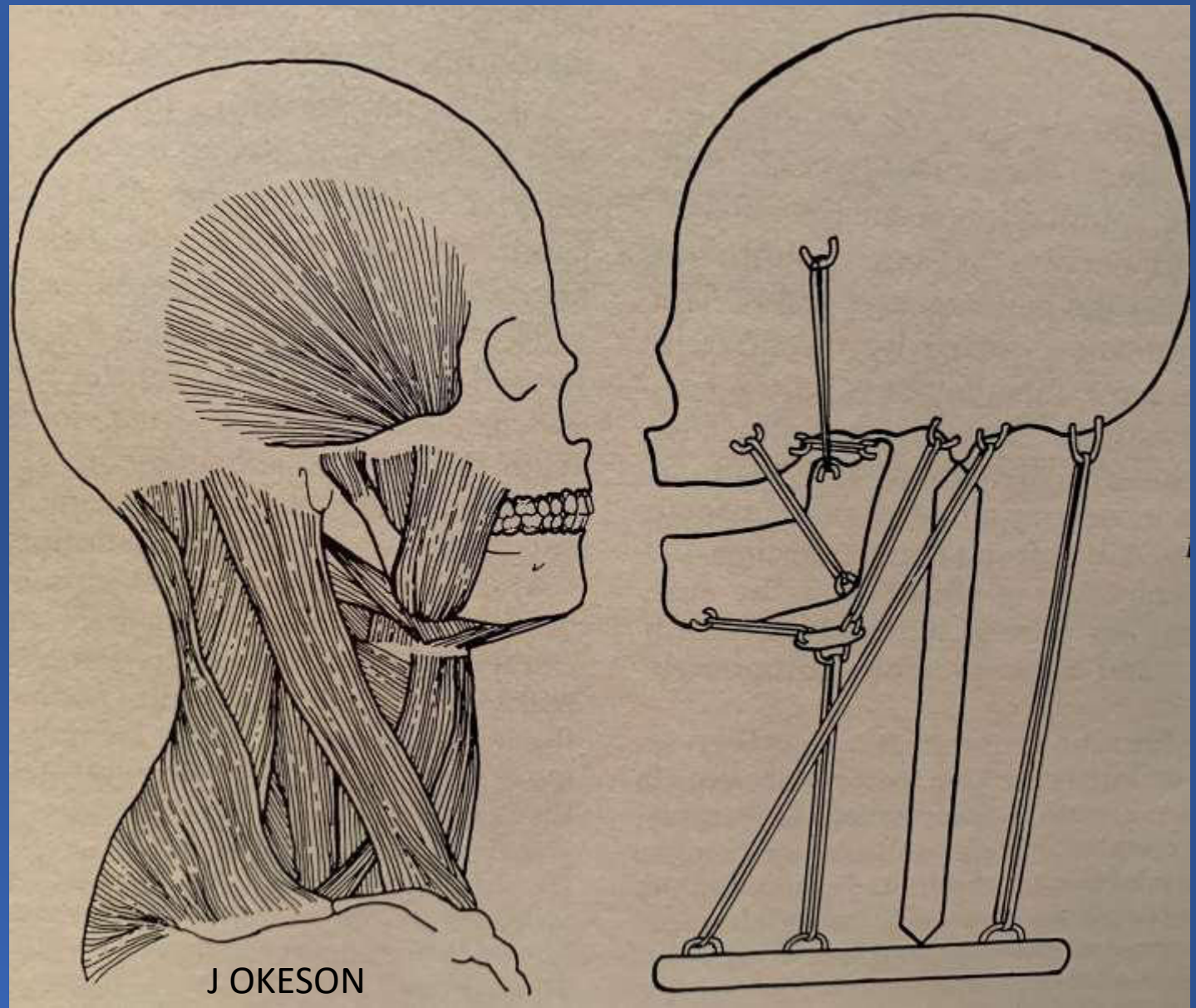
- WHICH AFFECT :

- BODY POSTURE & MOVEMENT
- BLOOD FLOW TO AND FROM THE BRAIN
- MOVEMENT OF CSF AROUND THE BRAIN AND SPINE

MUSCLE TENSION AFFECTS POSTURE

All jaw muscles have an antagonist balancing muscle

- To control fine motor movements chewing, swallowing, speaking
- To balance head position



ADAPTATION

- The most common cause of masticatory muscle pain is the displacement of the mandible dictated by maximum intercuspation of the teeth
- Displacement ALWAYS results in condyle-disc assembly displacement
- Which lead to progressive alignment changes, reflected in C1-C2
- The bite will affect posture

Normal Activities of the stomatognathic system

- **FUNCTIONAL** DIURNAL
- **CHEWING**
- **SWALLOWING**
- **SPEAKING**
- **EXPRESSION OF EMOTIONS**
- **RESPIRATION**

- PROTECTIVE REFLEXES DIRECTLY INFLUENCED BY TOOTH CONTACTS
- 17200 lb-sec/day
- Total time in contact 4.7 mins
- Tooth contact 1800 times/day
- Normal VERTICAL physiological forces

Okeson JP management TMJ Disorders

Abnormal Activities of the stomatognathic system

- **PARAFUNCTIONAL**
- DIURNAL / NOCTURNAL

- **CLENCHING**
- **GRINDING = BRUXING**

- **ORAL HABITS** nail biting, pencil biting, clenching
- DIURNAL

- MUSCLE HYPERACTIVITY, adverse reciprocal upper cervical forces

- HARMFUL LATERAL FORCES

- MOSTLY DURING SLEEP BETWEEN NREM/REM CYCLES

- 57,600 lb-sec/ day (Normal 17,200lb-sec)

- PROVOKED BY BITE DISCREPANCIES
- STRESS and PAIN

Forces over 3 times greater and in a harmful TRANSVERSE direction

Okeson JP management TMJ Disorders

CHEWING AND SWALLOWING

with a complete dentition

CHEWING STROKES/DAY = 1800

SWALLOWING = 146 x EATING

Vs

PARAFUNCTION FORCES

harmful eccentric movements

PHYSIOLOGICAL normal vertical force

58.7 lbs x 115 msecs = 6.75lb-secs/chew

= 12,150lb-sec/day

66.5LBS X 522 msecs = 5068 lb-sec/day

TOTAL= 17200 lb-sec/day

Total time 4.7 minutes

57,600 lb-sec/day

Gibbs CH J Pros Dent 46:443, 1981

WHAT IS AN IDEAL DENTAL OCCLUSION ?

- Two complete dental arches which are in harmony with the musculature of the head and neck, and cause no proprioceptive reaction in normal function, or parafunction.
- Require NO adaptive functional changes

CLASS 1 occlusion

Class One relationship of molars and canines

All lateral guidance (BLUE) is on ANTERIOR TEETH

How do I assess the occlusal function

1. History and symptoms

Referral letter

Questionnaires sent out by email

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Medical History

Dysfunction screening

Pain History and [illegible]arting

Dental History [illegible] symptoms

[illegible]ATED [illegible] questionnaire

An outline of what is involved and fee[illegible]

Consultants reports MRIs etc

Dysfunction screening questionnaire

Answers should indicate severity: 1=MILD 2=MODERATE 3=SEVERE

- Does it hurt when you chew, open wide, or take a big bite
- Does your jaw ever make a noise?
- Do you have pain in front of , in, or behind the ear?
- Do you ever have headaches, if so, how often?
- Do you ever have tiredness, pulling or tightness in your head neck or
- throat ?
- Do you ever have a feeling of dryness or burning in the mouth ?
- Do you ever have to search for a place to close your teeth ?
- Does a tooth ever get in the way ?
- Are any teeth sensitive or tender ?

Dysfunction questionnaire, part 2

- Do you take any medication ?
- Have you ever had an injury or blow to the head or neck ?
- Have you had any recent dental treatment ?
- Has your bite changed ?
- Do you suffer from tinnitus ?
- Do any of the mentioned conditions stop you from doing anything ?

- ANY OTHER COMMENTS

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symptoms

questionnaire

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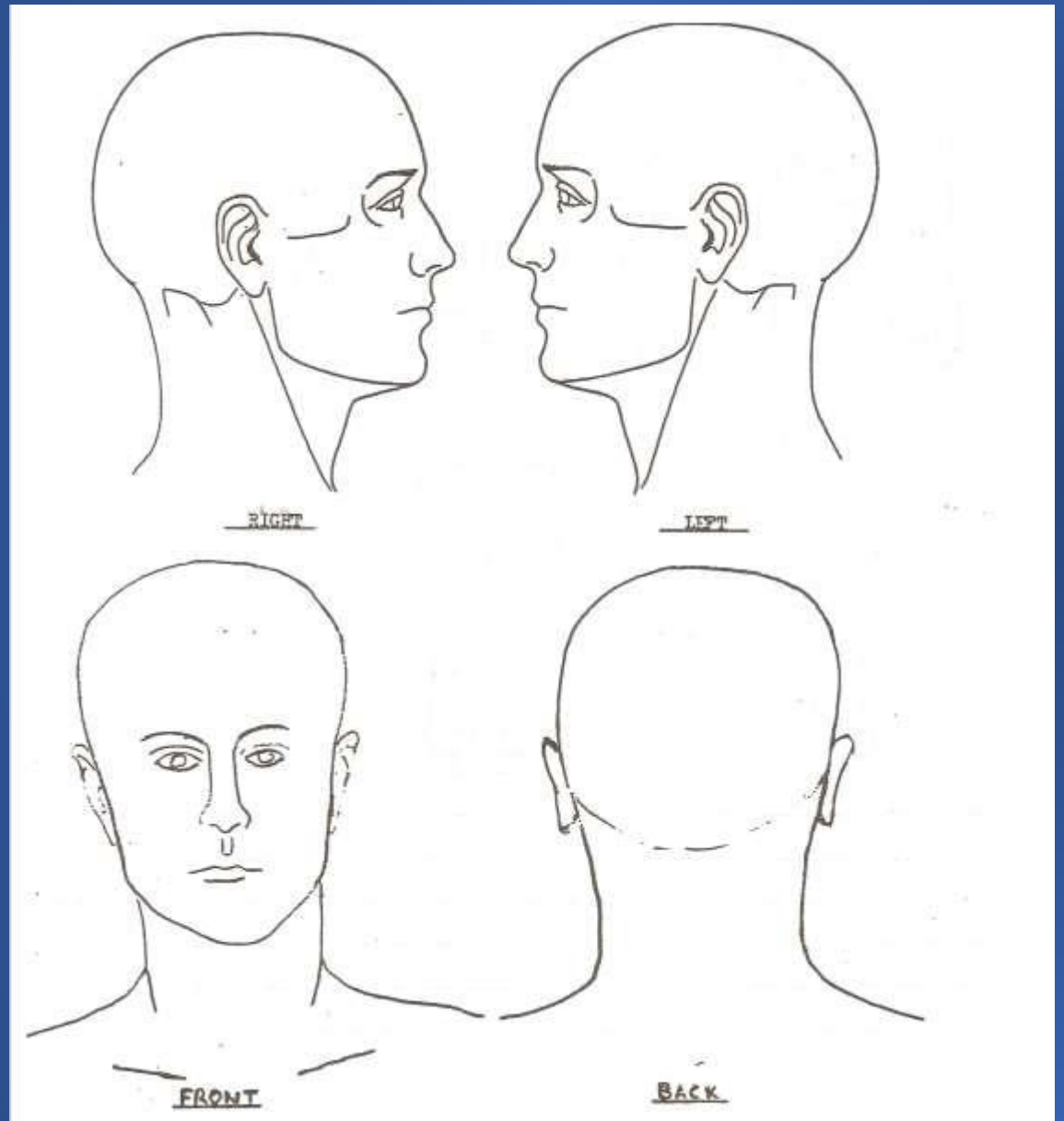
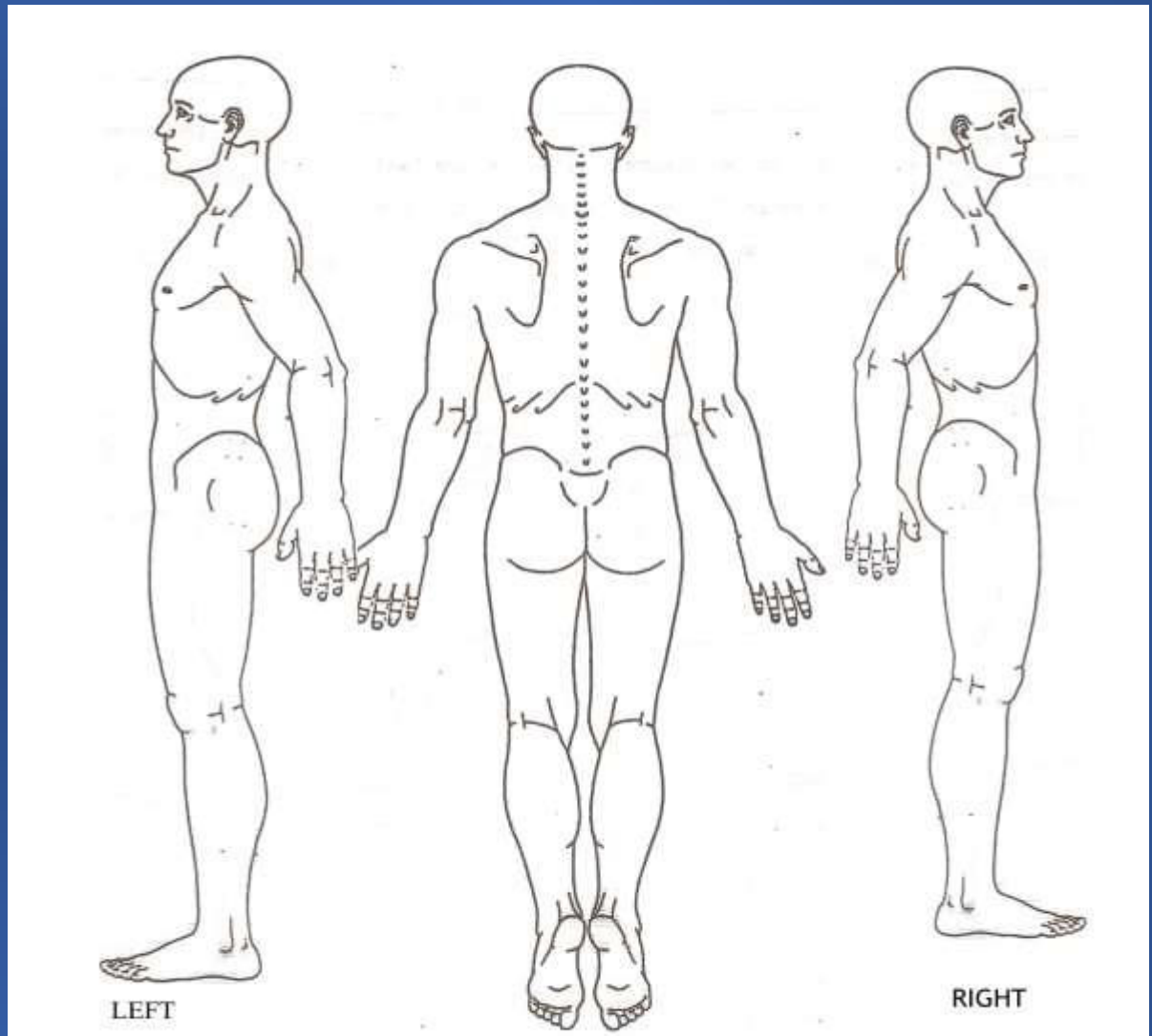
PAIN HISTORY AND GRAPHIC

please indicate areas of pain and history of how bad it has been





Pain History:

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[illegible] questionnaire

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DENTAL HISTORY

- Do you have any missing teeth ?
- Have you had orthodontic treatment ?
- Has your bite ever been changed ?
- Are your teeth comfortable ?
- Are you happy with the appearance of your teeth ?
- Have you had any “fillings” ?
- Have you had or do you have any crowns or bridges ?
- Do you have any dental implants ?
- Do you have regular dental check-ups ?
- Do you have any tooth or jaw pain ?

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S.A.T.E.D. sleep questionnaire

An outline of what is involved and fee

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S.A.T.E.D sleep questionnaire

From:
“WHY WE SLEEP”
Mathew Walker

S.A.T.E.D. **SLEEP QUESTIONNAIRE**

	0 RARELY/NEVER	1 SOMETIMES	2 ALWAYS
Satisfaction Are you satisfied with your sleep ?			
Alertness Do you stay awake all day without dozing ?			
Timing Are you asleep or trying to sleep between 2am-4am ?			
Efficiency Do you spend less than 30 minutes awake at night ?			
Duration Do you sleep between 6-8 hours per day ?			

TOTAL FOR ALL ANSWERS (0-10)

0= POOR SLEEP——————————10= GOOD SLEEP

Why is SLEEP important ?

An essential foundation to good health, 7-8 hours/night

Occlusal triggers will create a PROPRIOCEPTIVE response during sleep which leads to PARAFUNCTION

EXACERBATED by STRESS & PAIN

Lateral forces generated during parafunction exceed the physiological norm 57,000 lb-sec/day (vs 17,200 lb-sec/day)

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2. Dental examination

Skeletal relationship Maxilla/Mandible

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Periodontal condition

Wear occlusally

Abfracture lesions

Restorations, and missing teeth

Implants

Mobility

Sensitivity

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WISDOM TEETH

- 

Over-erupted lower Wisdom tooth

Interference in protrusion

How do I assess the occlusal function

1. History and symptoms, eg headaches, neck aches, facial pain
2. Dental examination
3. Muscle and TMJ examination

MUSCLE PALPATION

- S.C.M. & CLAVICLE
- HYOID BONE
- DIGASTRICS
- SCALENES
- MASSETERS
- TEMPORALIS
- POSTERIOR NECK
- TRAPEZIUS
- LATERAL PTERYGOIDS

TMJ PALPATION

- LATERAL CAPSULE
- E.A.M. – retrodiscal
- Note deviation on opening
- Noises: clicks/ crepitus
- Range of Motion

Normal Range of Motion of TMJ 40-60mm

Restricted opening

Myofascial Pain and Dysfunction
The Trigger Point Manual

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