

Occlusion, Headaches and Temporomandibular Joint Problems

Menu

Common Causes of Headaches

- Raised Temperature
- Sinus Problems
- Toothache
- Excess Alcohol
- Trauma
- Referred Pain from Muscle Spasm

The Neuromuscular Cycle

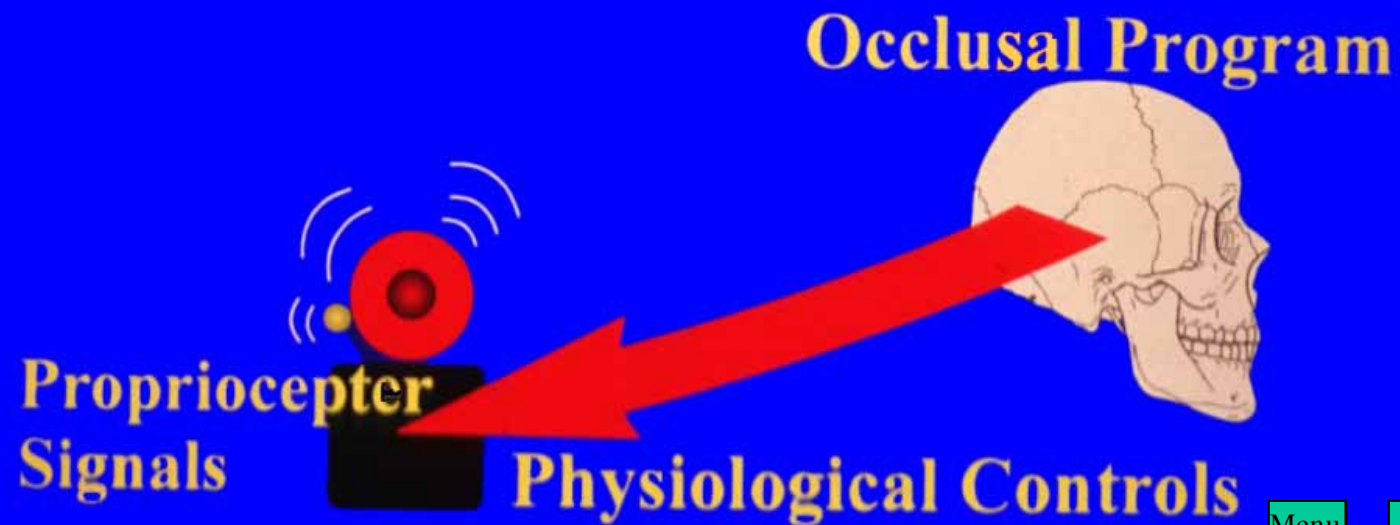
Occlusal Program



Menu



The Neuromuscular Cycle



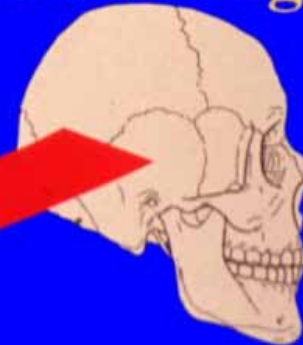
Menu



Master Control



Occlusal Program



Proprioceptor
Signals



Physiological Controls

Menu

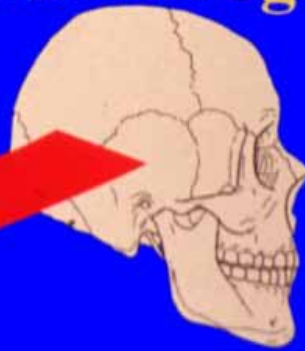


Master Control

Muscle Function



Occlusal Program



**Proprioceptor
Signals**



Physiological Controls



Menu

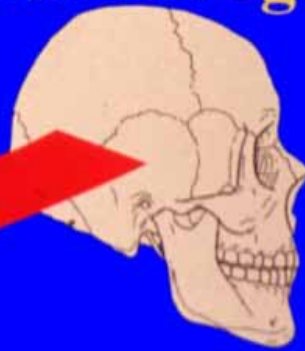


Master Control

Muscle Function



Occlusal Program



**Proprioceptor
Signals**



Physiological Controls

Menu



Master Control

Muscle Function



Occlusal Program

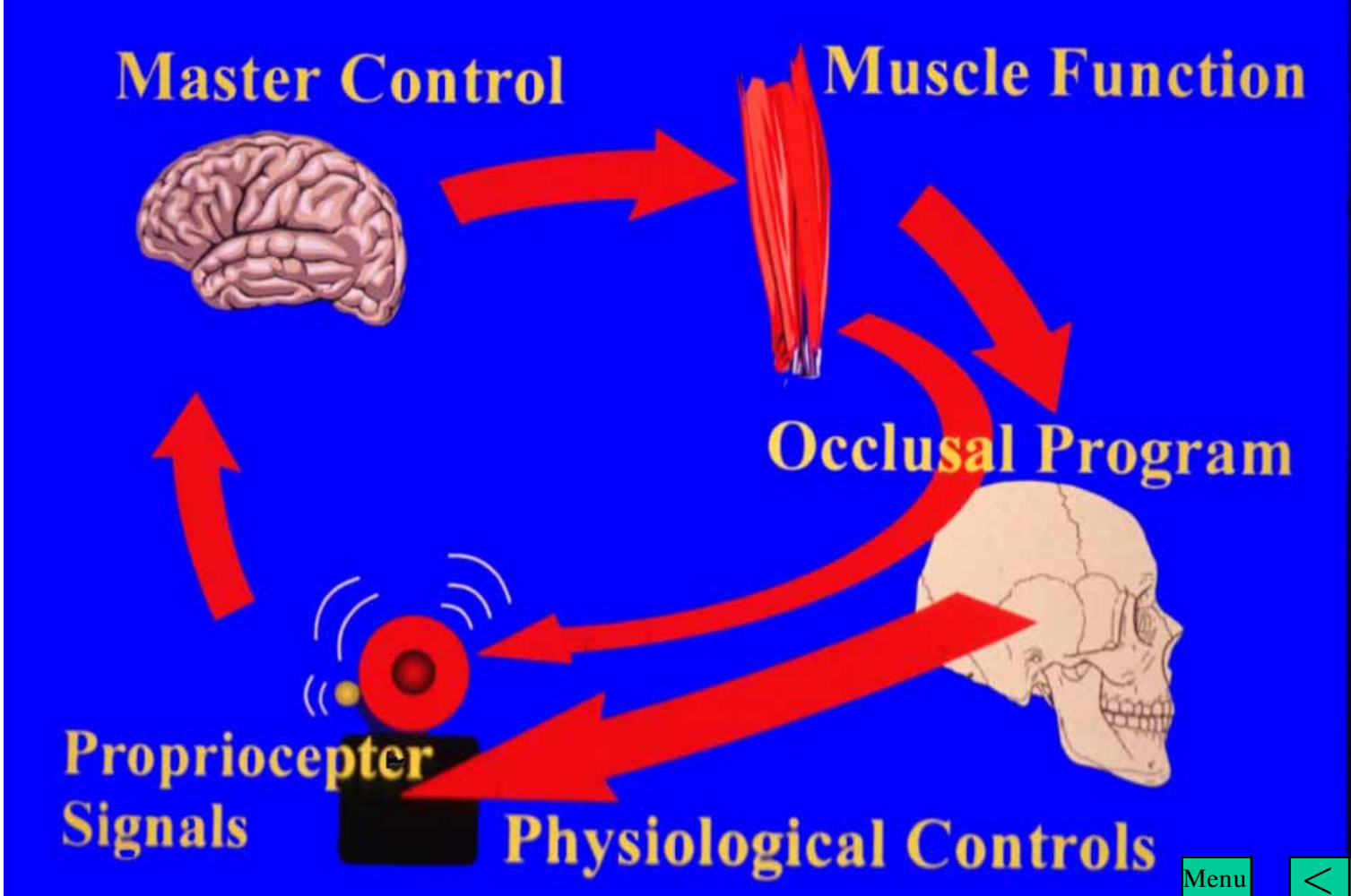


**Proprioceptor
Signals**



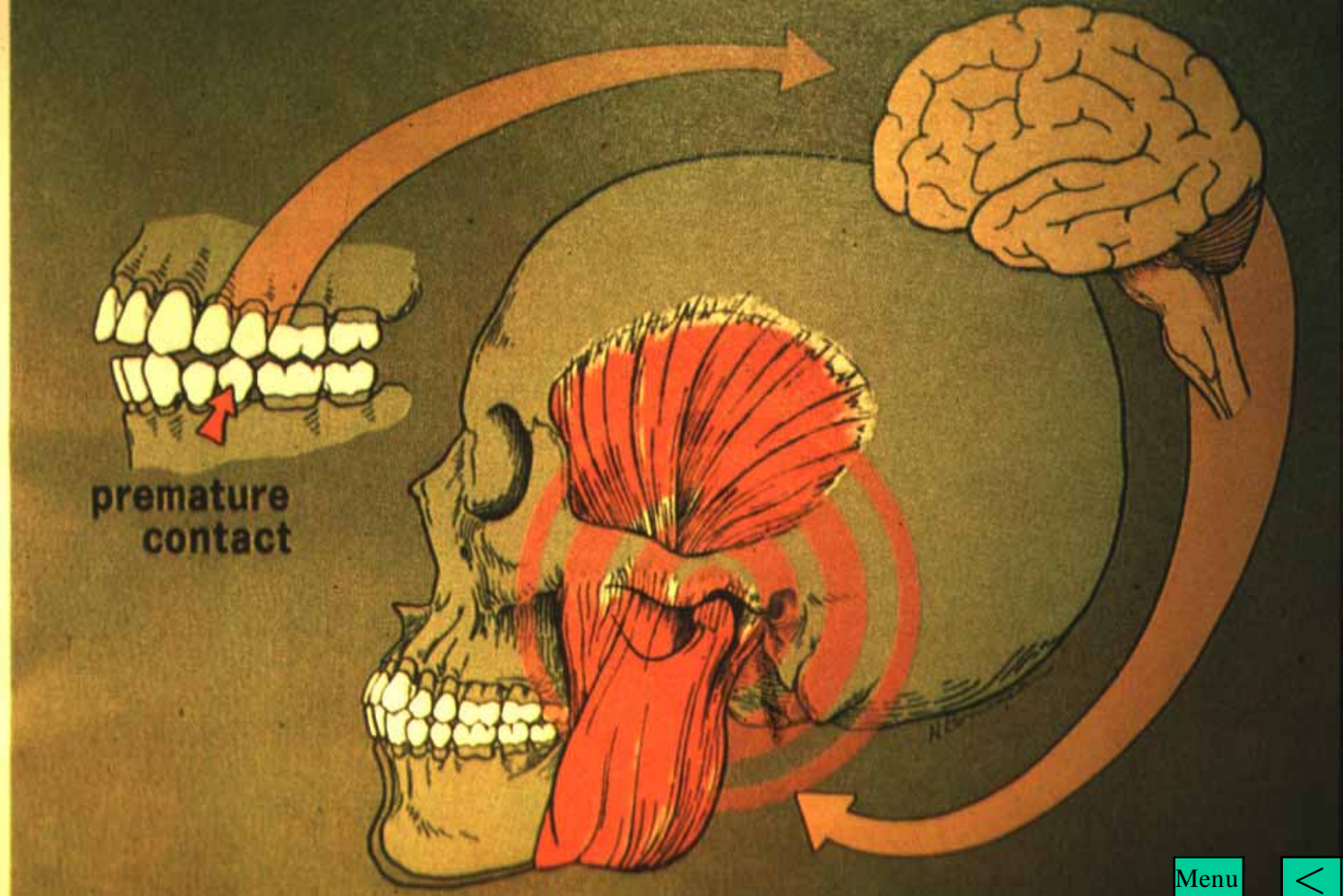
Physiological Controls

Menu



A Premature Contact causing Muscular Confusion and Muscle Spasm





premature contact

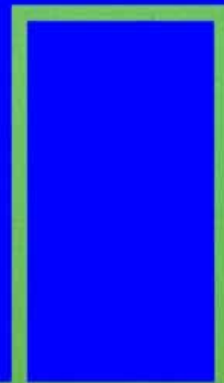
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Threshold

When the Threshold is high

Ideal



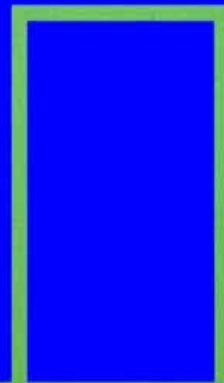
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Threshold

There may be no
Signs and Symptoms

Ideal



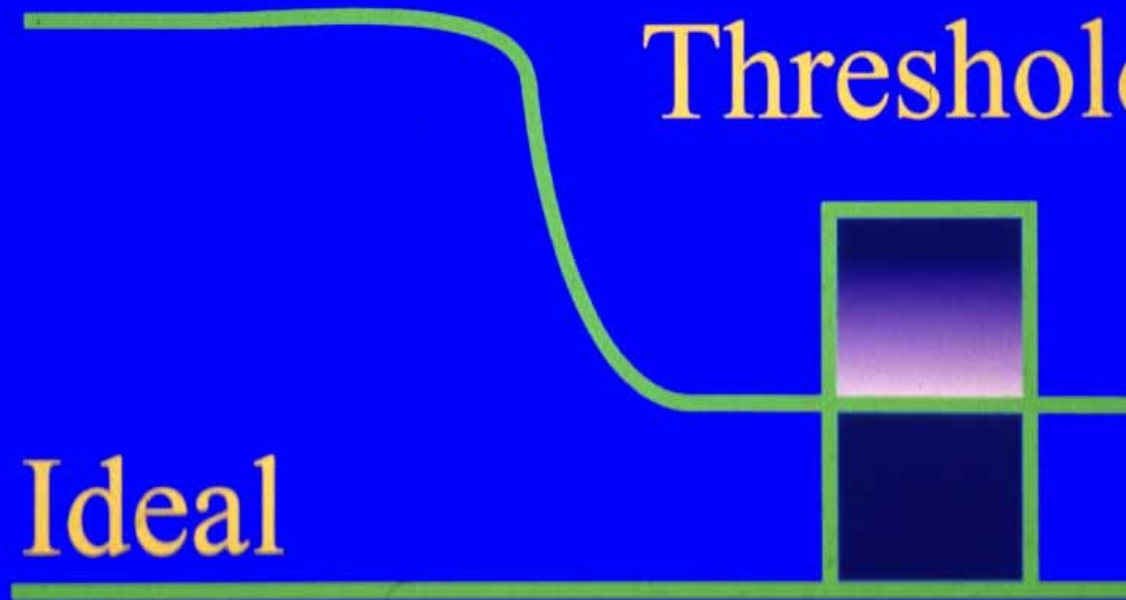
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If the Threshold
is Lowered

Lower
Threshold

Ideal



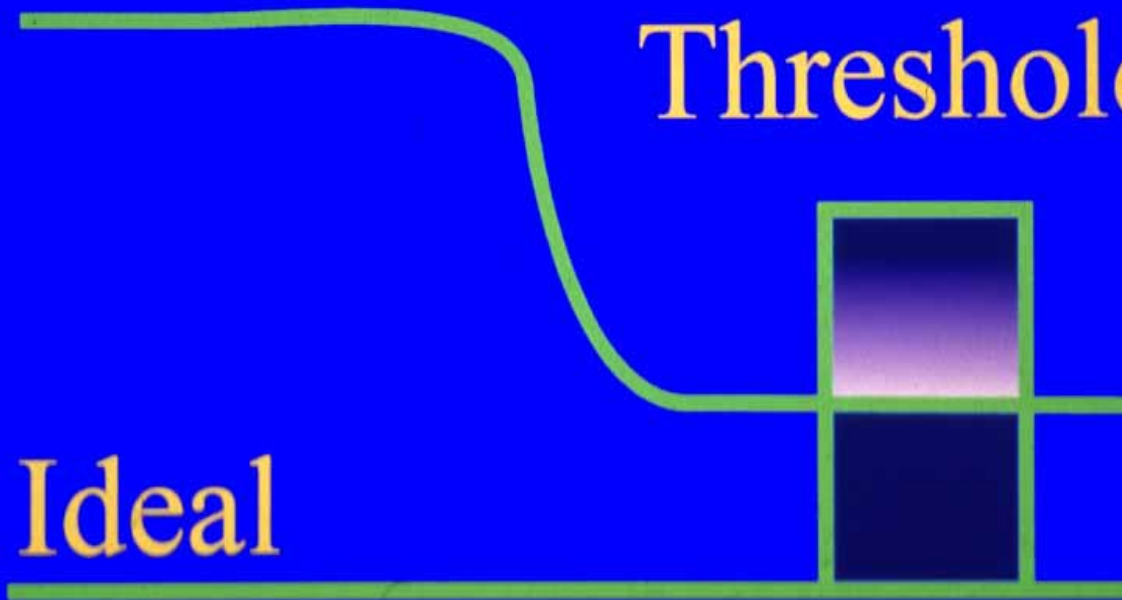
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due to
Increased Stress

Lower
Threshold

Ideal



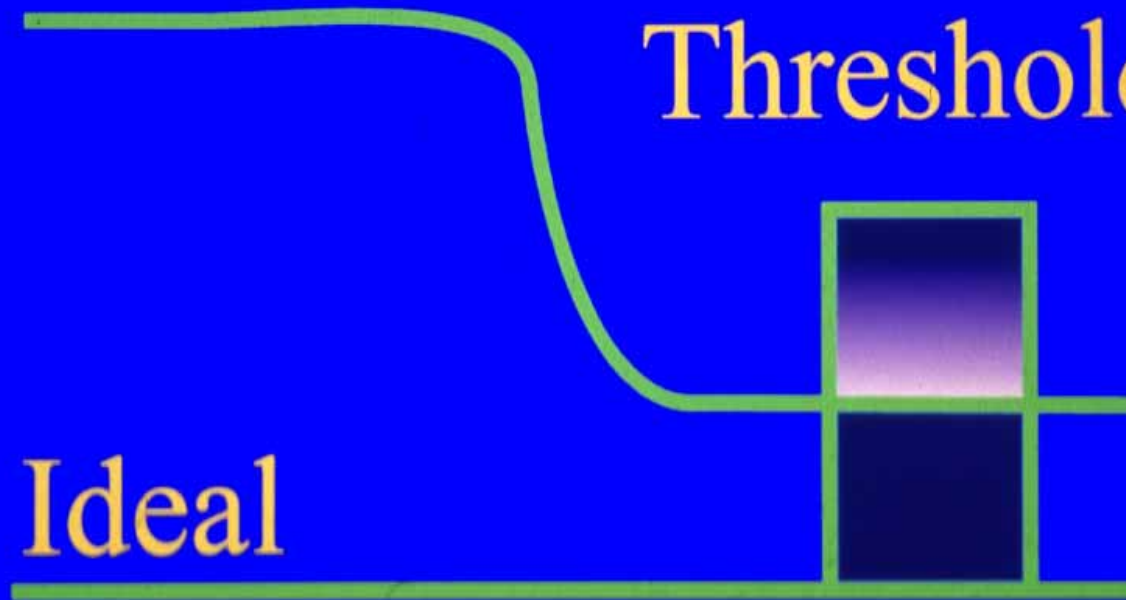
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Signs and Symptoms

may develop

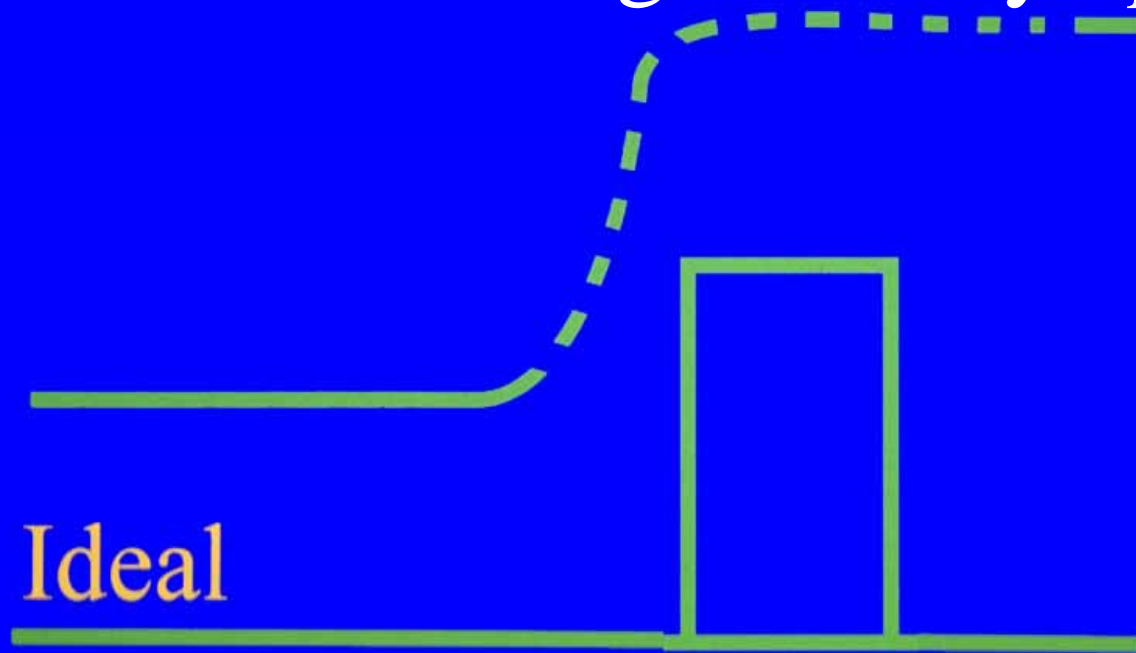
Lower
Threshold



Menu



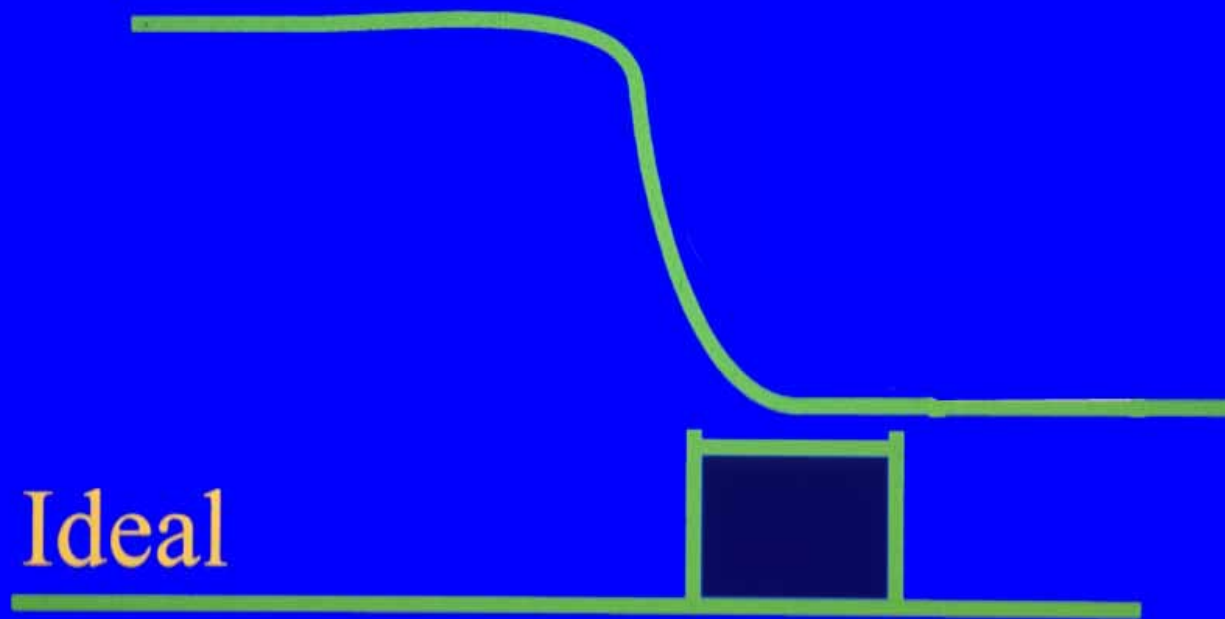
Either raise the Threshold
to relieve the Signs and Symptoms



Menu



Or decrease the Disharmony



Ideal

Menu



Occlusal Dysharmony

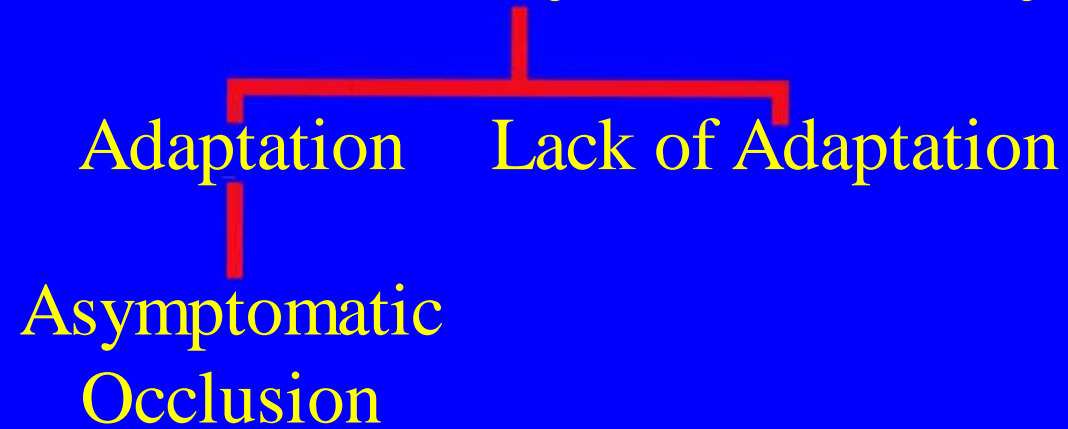


Adaptation Lack of Adaptation

Menu



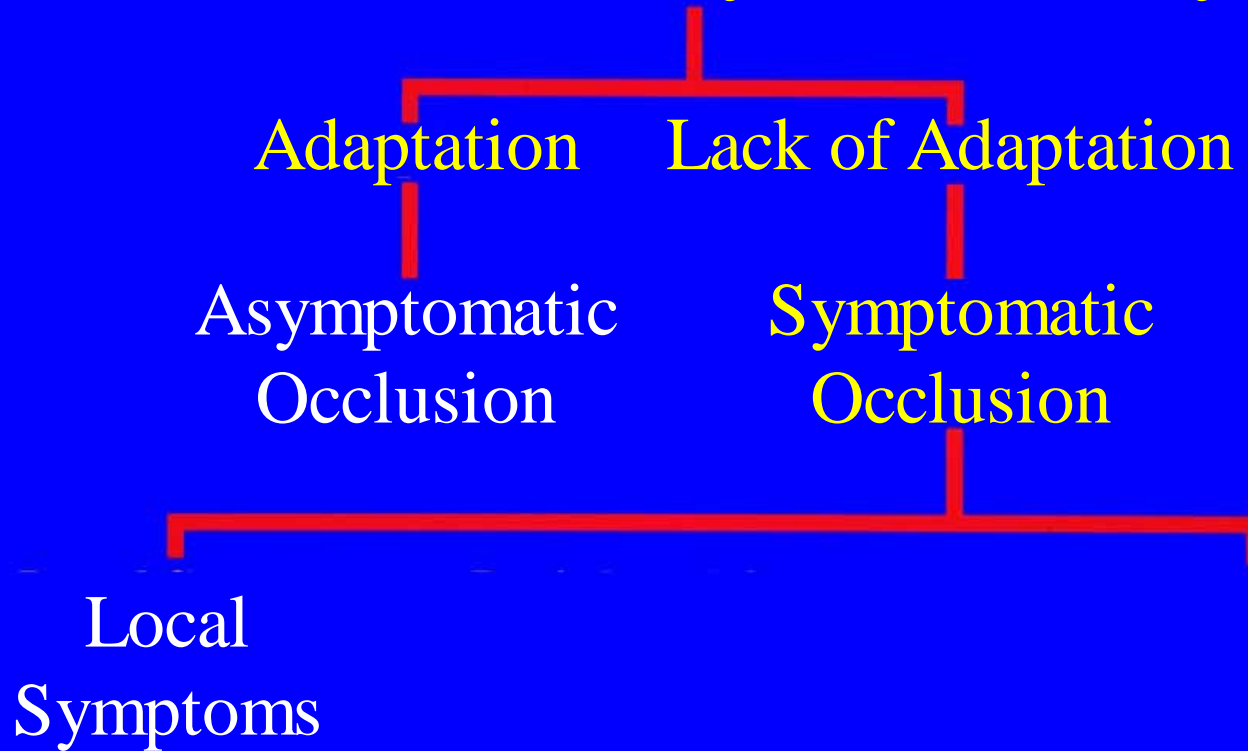
Occlusal Dysharmony



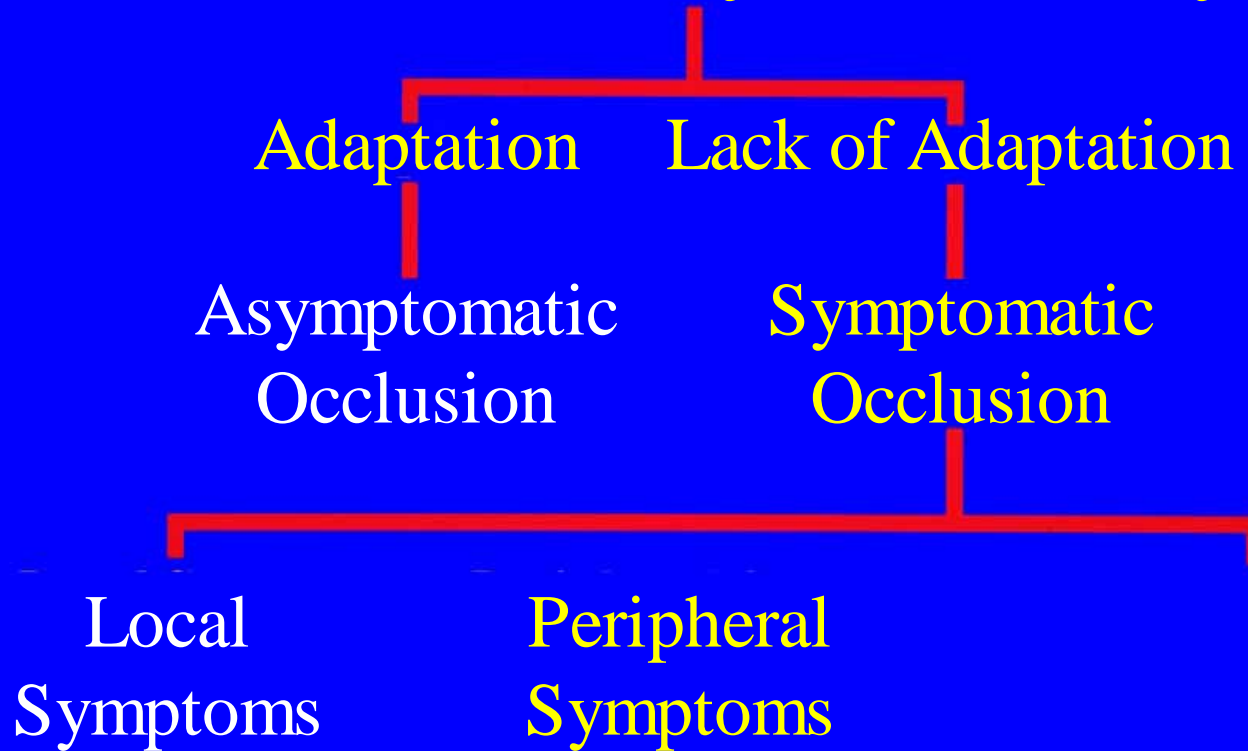
Occlusal Dysharmony



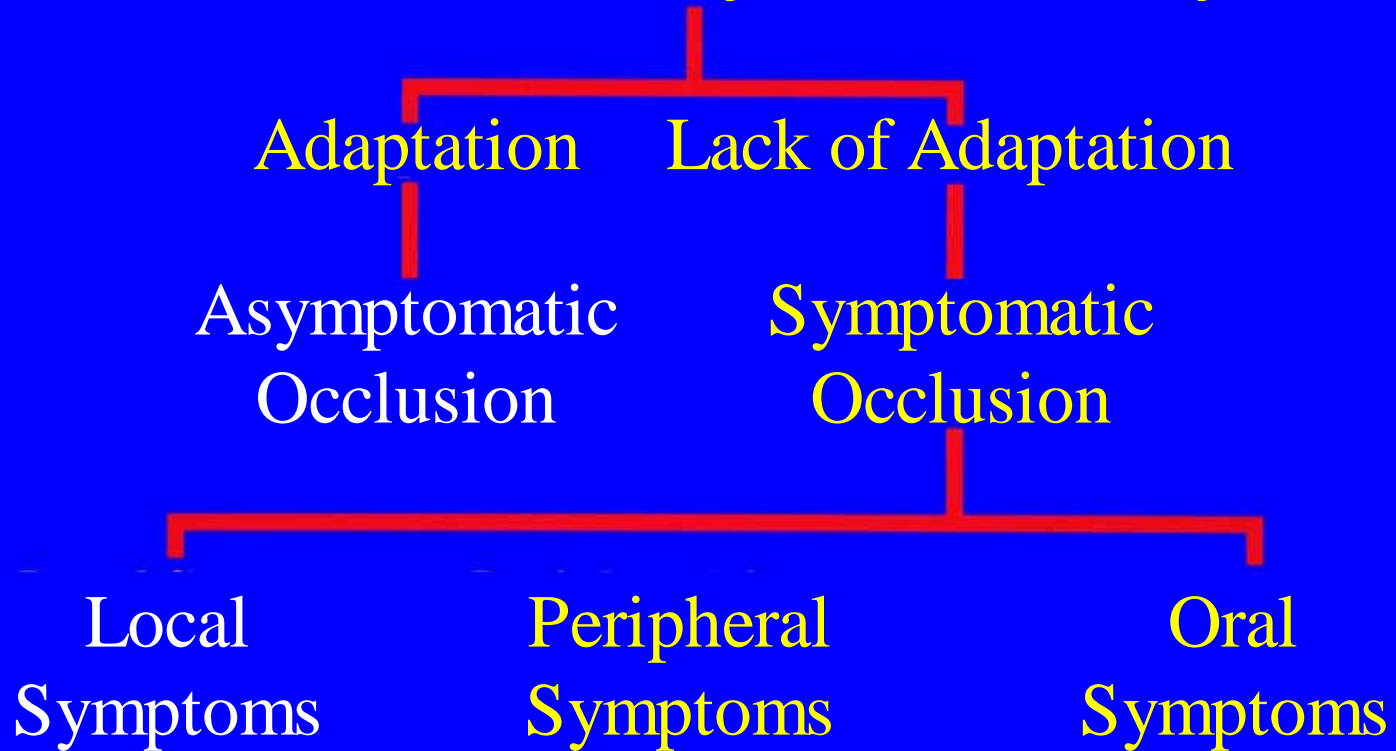
Occlusal Dysharmony



Occlusal Dysharmony



Occlusal Dysharmony



Local Symptoms

- Pain on Jaw Movements
- Decreased Mobility
- Severe Limitation in Opening
Trismus

Local Symptoms

- Hypermobility
- Fatigue
- Tenderness in Muscles of Mastication on Palpation

Peripheral Symptoms

- Headaches
- Dizziness & Loss of Balance (Vertigo)
- Burning Sensation in Tongue and Ears
- Mild Catarrhal Deafness
- Tinnitus

Peripheral Symptoms

- Pain in and around the Ears
- Dryness of the Mouth
- Pain in Muscles of Head and Neck
- Muscle Tenderness to Palpation

Oral Symptoms

- Bruxing
- Clenching
- Periodontal Breakdown
- Wear Facet

Oral Symptoms

- Tooth Fracture
- Tooth Mobility
- Hypersensitivity
- Occlusal Awareness

Stuart Orton-Jones
First Experiences Treatment
of Headaches and
Temporomandibular Joint Problems

Menu



At Guys Hospital 1966

Told that Scandinavian Dental Schools
had Occlusal Equilibration Departments

Menu



1966

Visited Scandinavian Dental
Schools

Menu



1969

Studied at Northwestern Dental School
Chicago USA

Removed an Over-erupted Upper
Wisdom Tooth

Patient declared later that her
Headaches had stopped

Menu



1972 - 1977

Studied Occlusion at the Pankey
Institute in Miami

Menu



1972

While practicing in Niagara Falls
Ontario

First Patient equilibrated
reported cessation of Loud Click
during eating

Menu



Facial Pain

Menu



Common Causes of Headaches

- Raised Temperature
- Sinus Problems
- Toothache
- Excess Alcohol
- Trauma
- Referred Pain from Muscle Spasm

Mechanism of Myofascial Pain

Occlusal
Interferences

Menu



Mechanism of Myofascial Pain

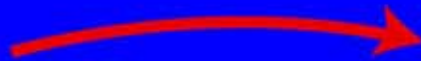
Occlusal Interferences  Stimulates

Menu



Mechanism of Myofascial Pain

Occlusal
Interferences



Bruxism
Clenching

Menu



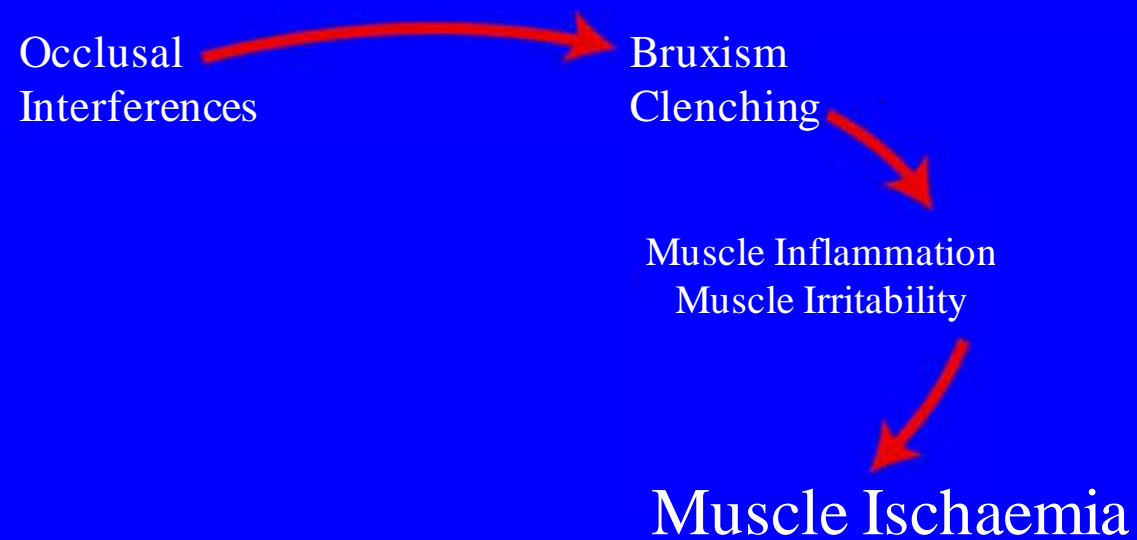
Mechanism of Myofascial Pain



Menu



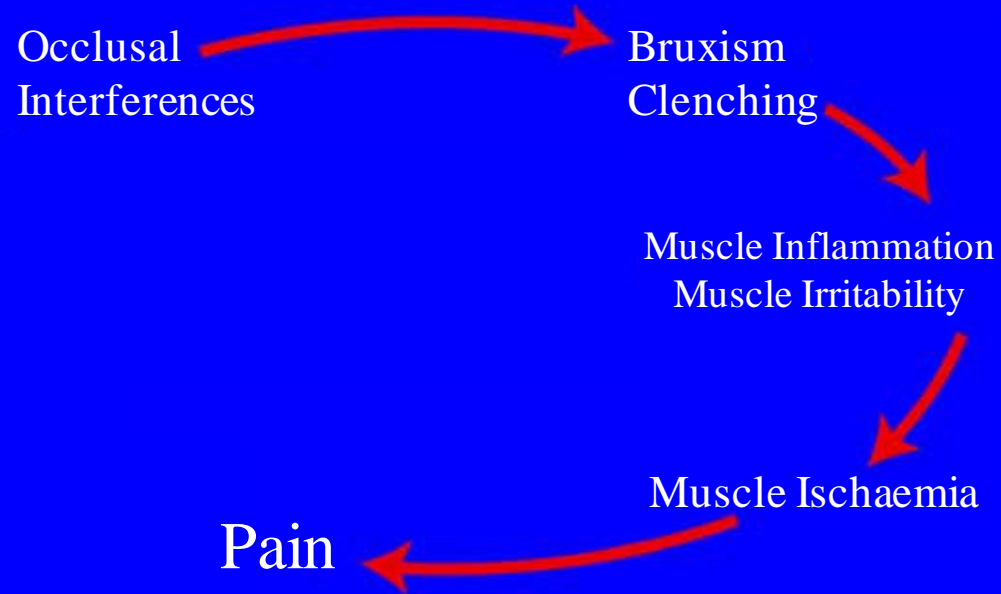
Mechanism of Myofascial Pain



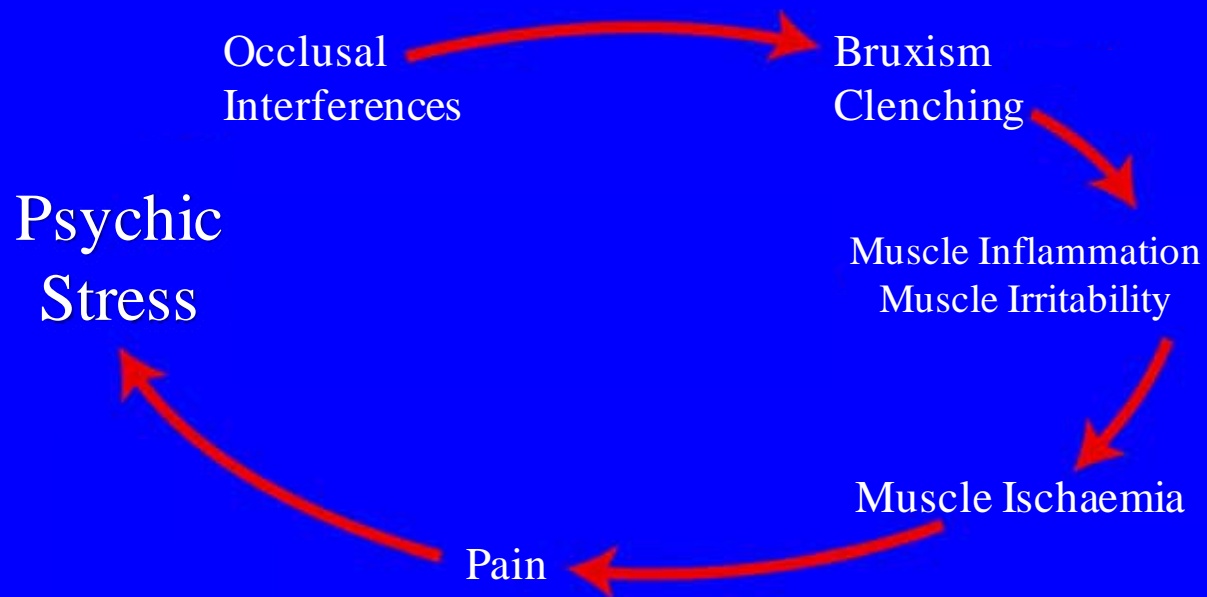
Menu



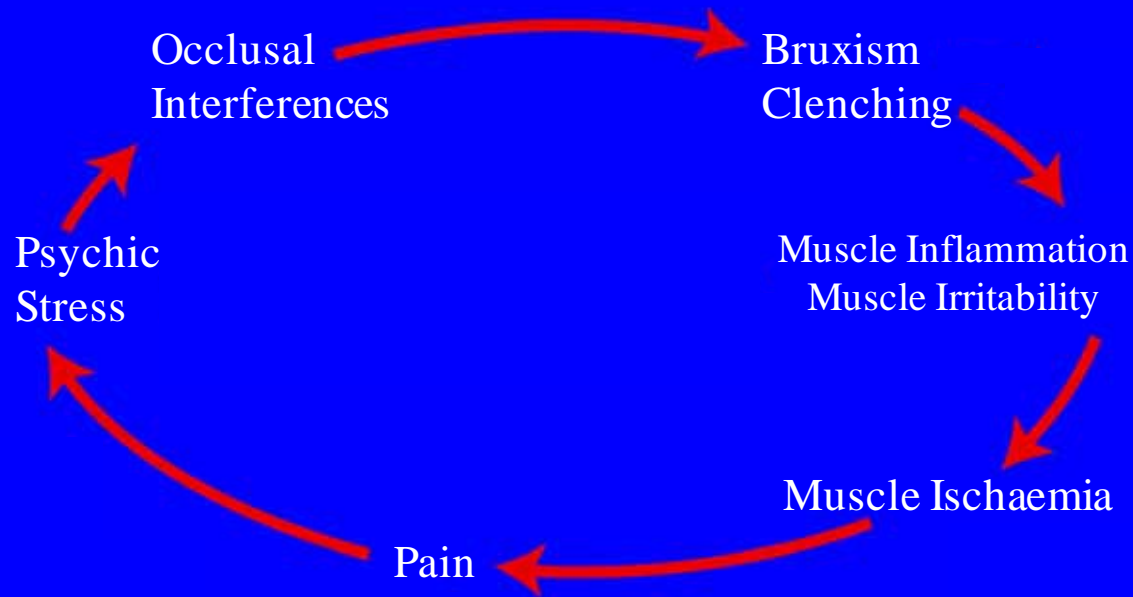
Mechanism of Myofascial Pain



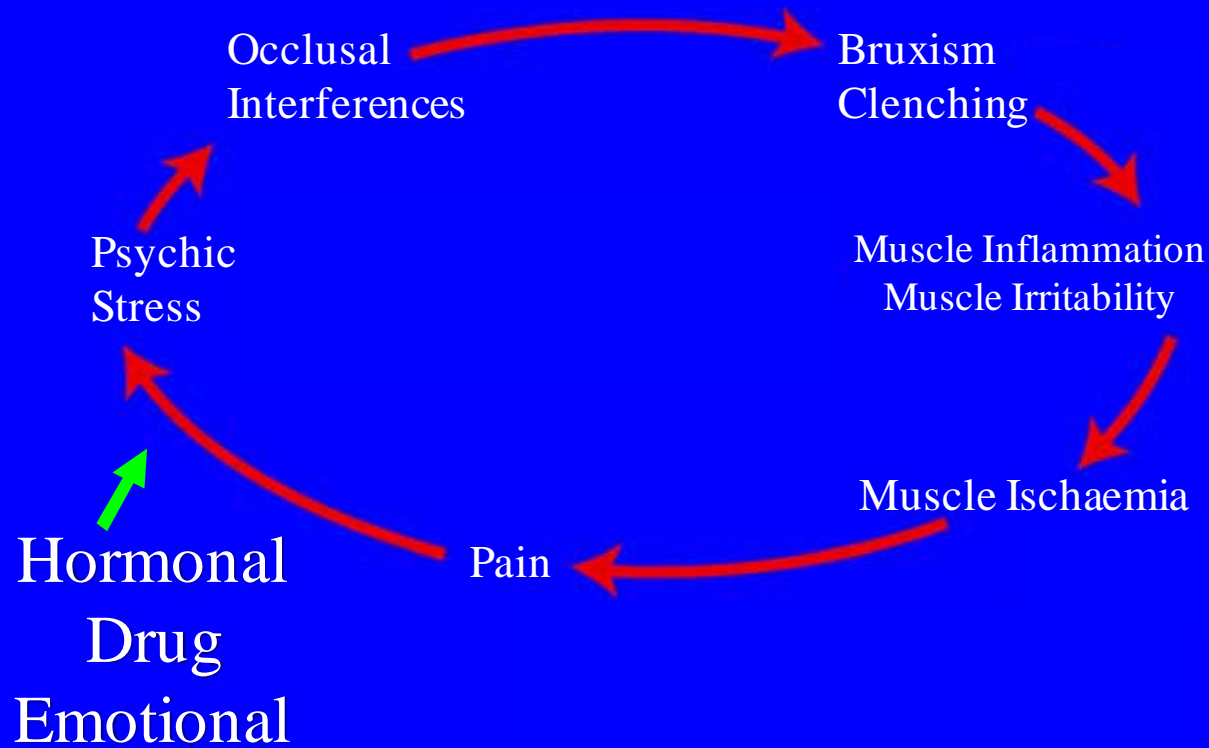
Mechanism of Myofascial Pain



Mechanism of Myofascial Pain



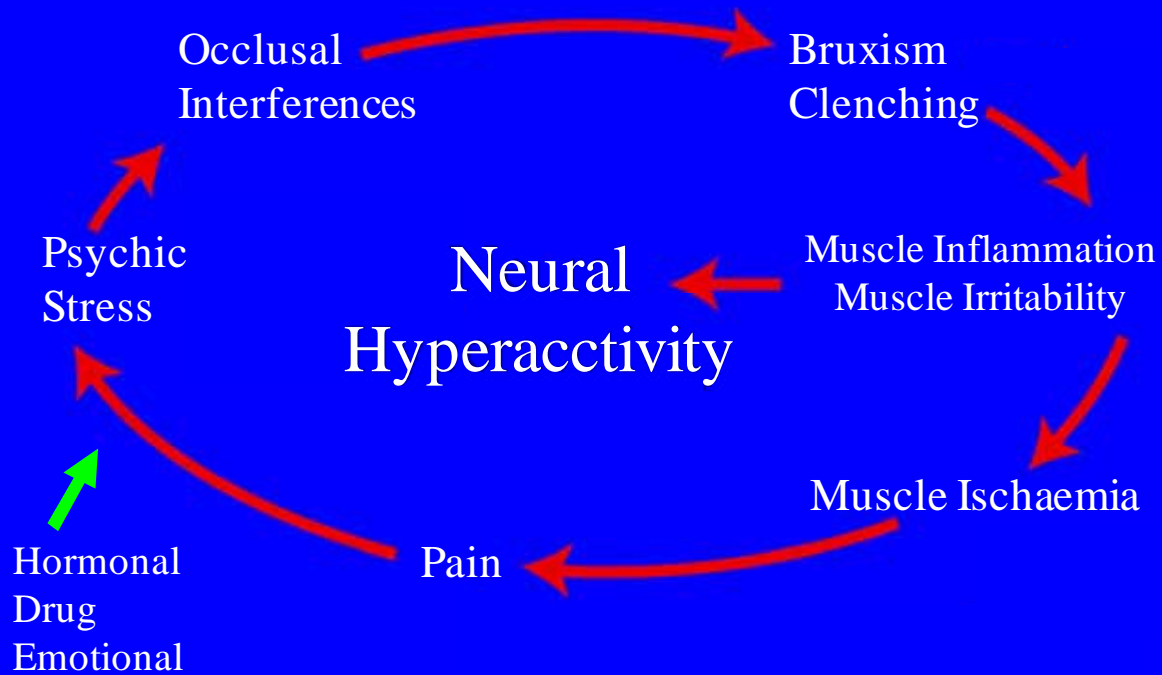
Mechanism of Myofascial Pain



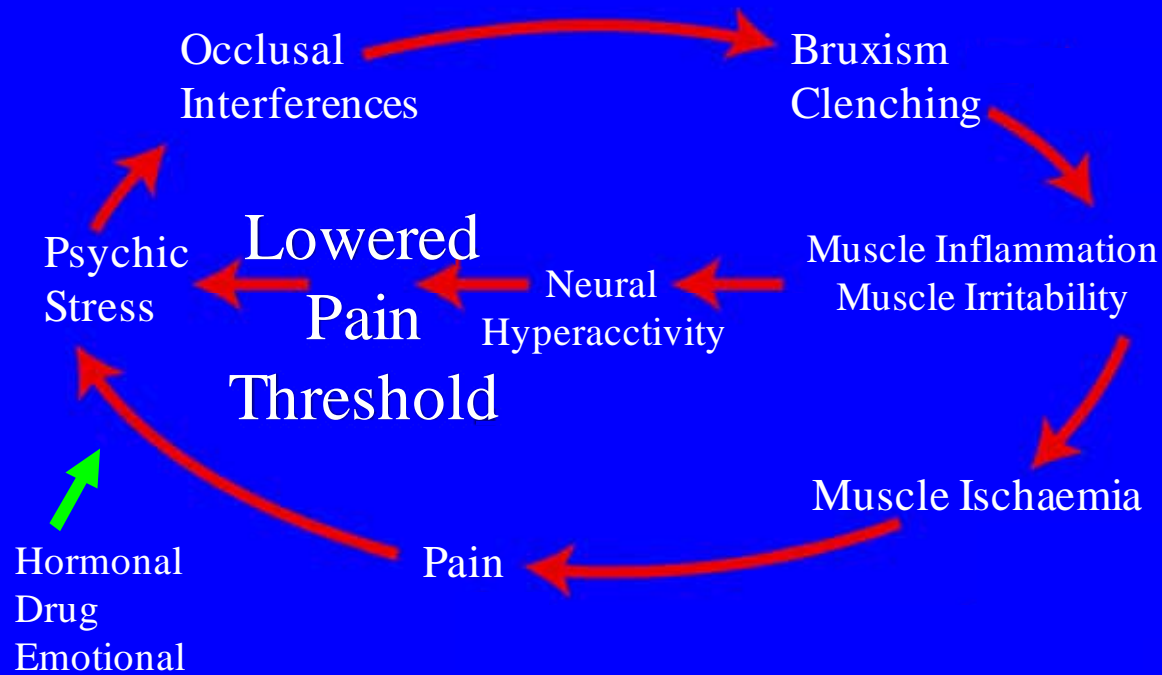
Menu



Mechanism of Myofascial Pain



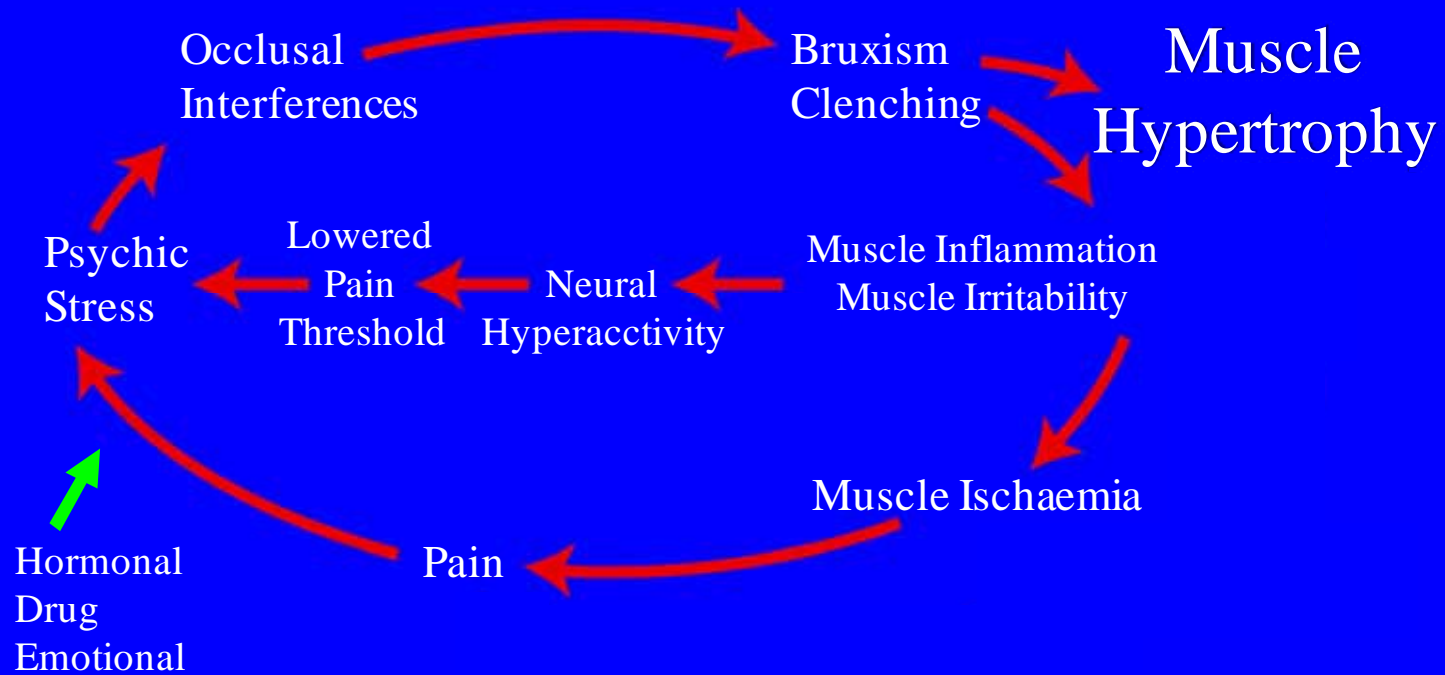
Mechanism of Myofascial Pain



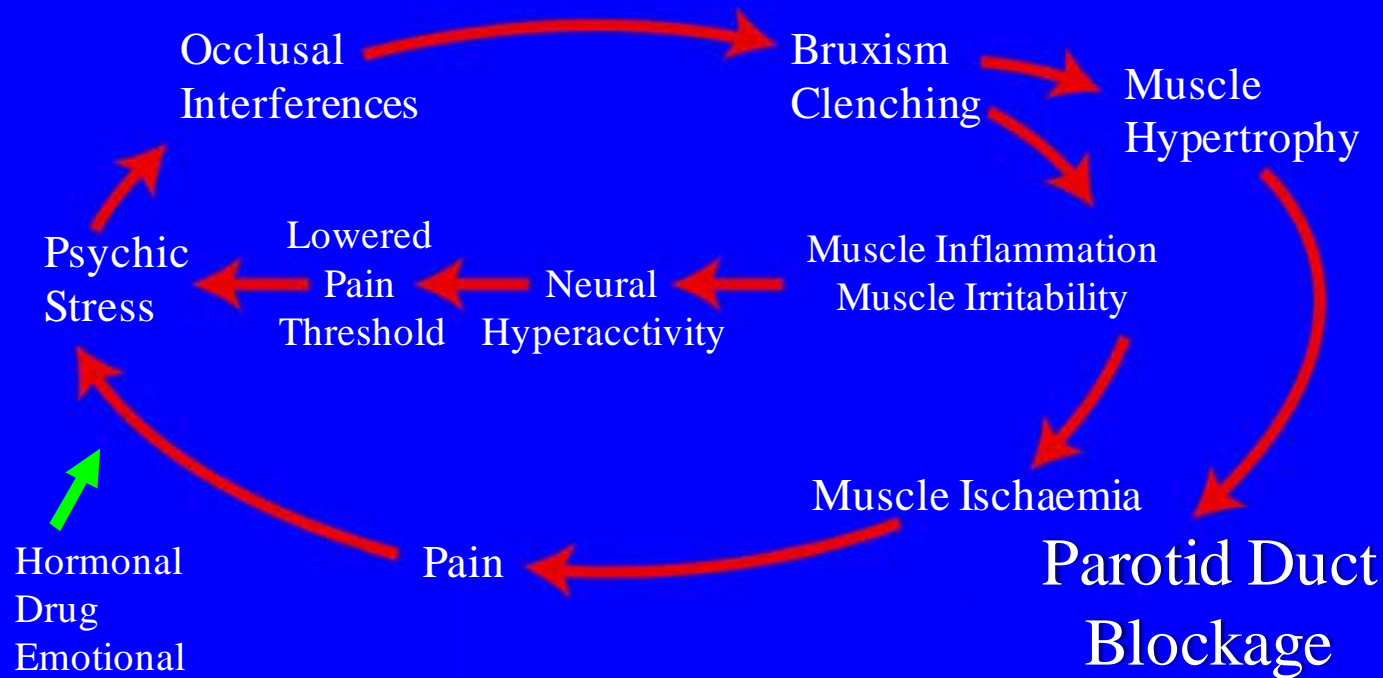
Menu



Mechanism of Myofascial Pain



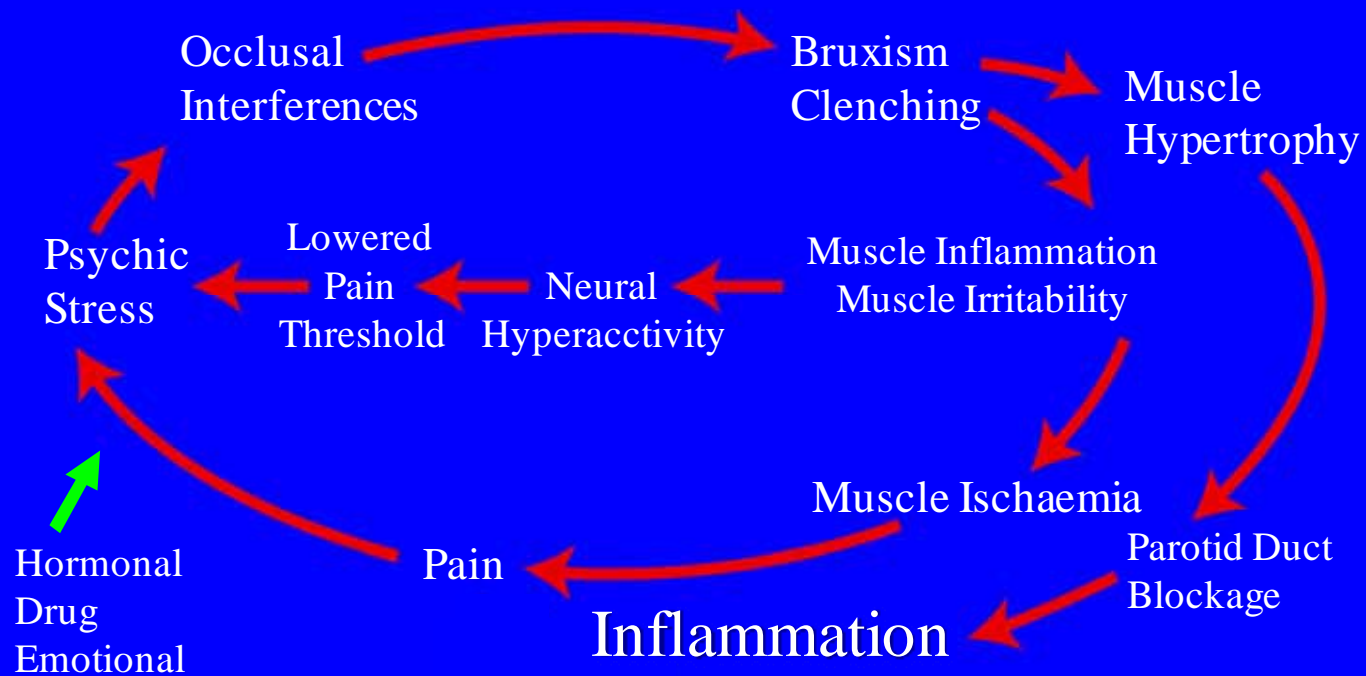
Mechanism of Myofascial Pain



Menu



Mechanism of Myofascial Pain



Menu



Myofascial Pain
Dysfunction Syndrome
A Syndrome involving Pain
due to Muscle Fatigue
induced by Clenching
and Grinding of the Teeth

Menu

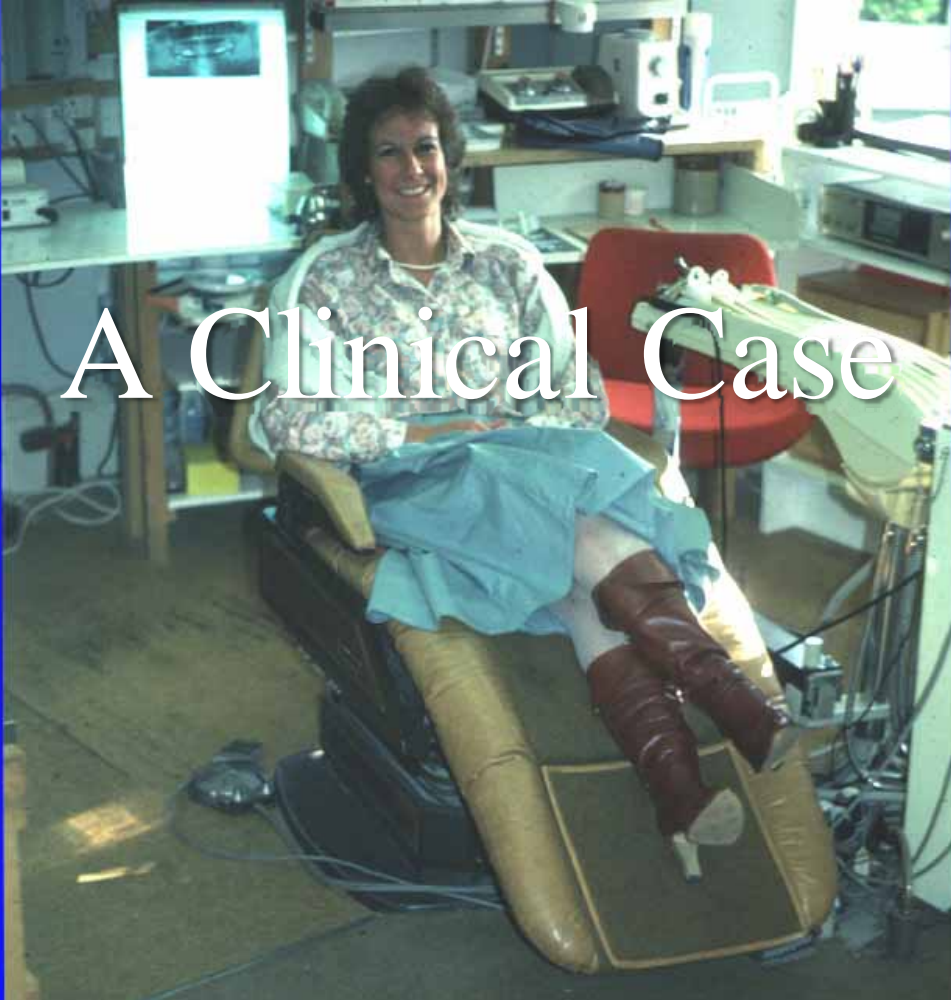


Myofascial Pain Dysfunction Syndrome

A Tension Relieving Behaviour
due to Psychogenic Stress
usually triggered by early
Occlusal Contacts

Menu





A Clinical Case

Menu





Menu



This Patient was a Dental Assistant of Stuart Orton-Jones

- Patient was off Work for One Week
with Acute Earache
- Diagnosed by Own Doctor as having
Inner Ear Infection

- came back to Work for One Day
- was off Work for the Rest of the Week with Acute Earache
- Rang up on Friday Afternoon asking for her Dental X-rays to be checked

- No Significant Findings
- Patient was asked to come to the Practice Straight away
- On arriving at the Practice Two Cotton Rolls were placed into the Patient's Mouth between the Posterior Teeth on either Side

After Fifteen Minutes the Patient reported a First Relief of Symptoms

- The Patient was pregnant at the Time
- Her Husband reported that she ground her Teeth so Loudly while Asleep He had to wake her up

The Patient was treated by fitting
of an Occlusal Appliance
followed by Occlusal Adjustment

Menu



Temporomandibular Joint Dysfunction

Menu



Temporomandibular Joint Dysfunction

Occlusal
Interferences
(Especially
Cross-over Interferences)

Menu



Temporomandibular Joint Dysfunction

Occlusal
Interferences
(Especially
Cross-over Interferences)



Parafunction
(Well Beyond Functional Range)

Menu



Temporomandibular Joint Dysfunction

Occlusal Interferences
(Especially Cross-over Interferences)



Parafunction
(Well Beyond Functional Range)

← Drugs

Menu



Temporomandibular Joint Dysfunction

Occlusal Interferences
(Especially Cross-over Interferences)

Parafunction
(Well Beyond Functional Range)

Drugs

Abnormal Stresses
on Joints

Menu



Temporomandibular Joint Dysfunction

Occlusal Interferences
(Especially Cross-over Interferences)

Parafunction
(Well Beyond Functional Range)

Drugs

Abnormal Stresses
on Joints

Joint Derangements
(Clicks, Crepitus,
Locking, Pain)

Menu



Temporomandibular Joint Dysfunction

Occlusal Interferences
(Especially Cross-over Interferences)

Parafunction
(Well Beyond Functional Range)

Drugs

Abnormal Stresses
on Joints

Joint Derangements
(Clicks, Crepitus,
Locking, Pain)

Acute Trauma

Menu



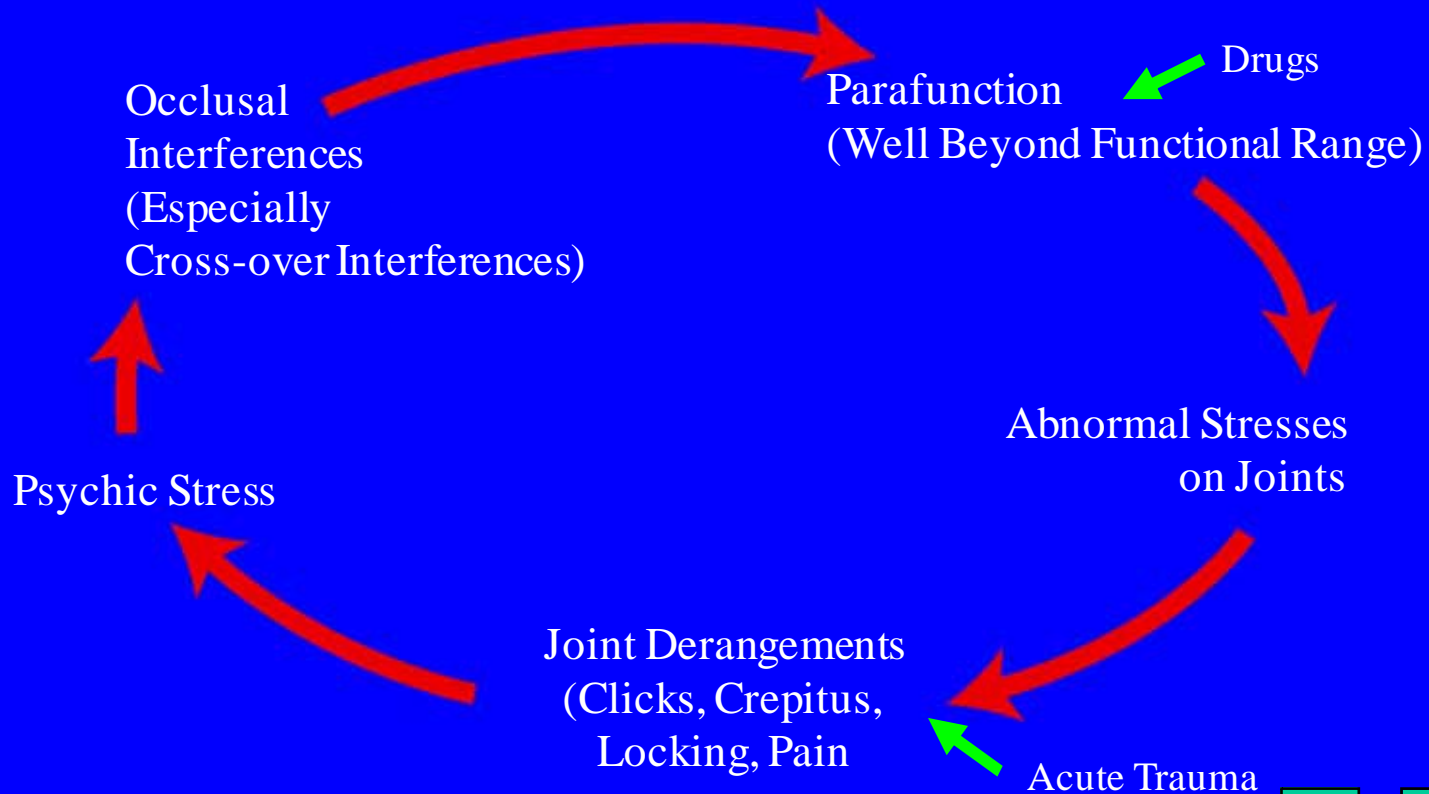
Temporomandibular Joint Dysfunction



Menu



Temporomandibular Joint Dysfunction



Side Effects of Masticatory Muscle Spasm

- Eustacian Tube Blockage
- Deafness
- Vertigo
- Tinnitus

Side Effects of Masticatory Muscle Spasm

- Parotid Duct Blockage
- Pain
- Limitation in Opening Trismus

The End

Menu

