

# Mental Status and Cranial Nerve Screening Examination

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# Mental Status

## Neurological Testing

# Why is Mental Status Important?

- Informed Consent
- Mood
- Emotional State
- Pain Identification
- Pain behavior
- Examination findings/coding
  - Bullets

# Mental Status

- Orientation
  - Person
  - Place
  - Time
- General Information
- Spelling
  - World-drow
- Numbers
  - 100 back by 3's
  - Seven Digit Number (office #)

# Mental Status

- Orientation
  - Person
    - Who are you?
    - Who am I?
  - Place
    - Where are we?
  - Time
    - What is the year, season, month, day?

# Mental Status

- General Information
  - Current Event
    - News items
    - Popular songs
    - Current movies

# Mental Status

- Spelling
  - Spell the word “world” forward and backward
  - Why backward

# Mental Status

- Numbers
  - Use especially if the patient cannot read
  - People who cannot read are often able to use numbers
    - From 100 backward by 3's
    - Repeat a 7 digit number (office #)
      - Don't use 867-5309



# Mental Status

- Observed Findings in Examination of Mental Status
  - Affect
  - Appearance
  - Attitude
  - Behavior
  - Level of Consciousness
  - Speech Language

# Mental Status

- Inquired Findings in Examination of Mental Status
  - Mood
  - Orientation
  - Spelling/The use of Numbers
  - Suicidal-Homicidal

# Mental Status

- Observed-Inquired Findings in Examination of Mental Status
  - Thought Process
  - Thought Content
  - Insight and Judgement
  - Attention Span
  - Memory
  - Intellectual Functioning

# Mental Status

- Observed Findings in Examination of Mental Status
- Affect
  - Their emotional influence
- Appearance
  - Hygiene, dress
- Attitude
  - Closely related to behavior

# Mental Status

- Observed Findings in Examination of Mental Status
  - Behavior
    - Cooperative
    - Uncooperative
  - Erratic
  - Level of Consciousness
    - Semi and unconscious patients don't typically initiate chiropractic care

# Mental Status

- Observed Findings in Examination of Mental Statuses
  - Speech Language
    - Annunciation/Slurred
    - Appropriateness of words
    - Unable to find the correct word

# Mental Status

- Inquired Findings in Examination of Mental Status
  - Mood
    - “He is in a good mood” “He is in a bad mood”
  - Orientation
    - Person, Place, Time

# Mental Status

- Inquired Findings in Examination of Mental Status
  - Spelling/The use of Numbers
    - Educational level must be considered
  - Suicidal-Homicidal
    - Unless they are holding a gun, knife...you have to ask



# Mental Status

- Observed-Inquired Findings in Examination of Mental Status
  - Thought Process
  - Thought Content
  - Insight and Judgement
    - The three functions above are interlinked
  - Attention Span
    - A minute per year

# Mental Status

- Observed-Inquired Findings in Examination of Mental Status
  - Memory
    - Short Term
    - Long Term
  - Intellectual Functioning
    - Closely related to Thought process, thought content, insight and judgement

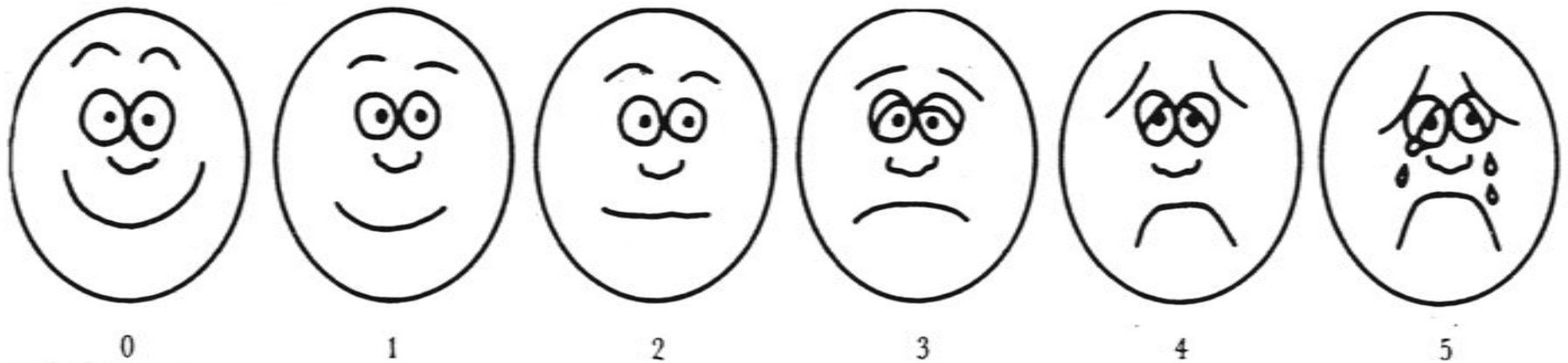
Important as a Vital Sign and a Mental Status Indicator

**PAIN**

# Mental Status & Pain

- Pain Factors
  - Facial expressions of pain and apprehension are good indicators of mental status and mood

# Mental Status & Pain



- Wong-Baker Faces



# Mood-Stoicism Indexing (Evans)

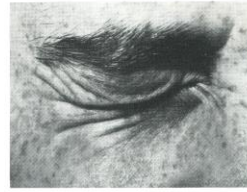
- Blinking Interval Average 25-30 seconds
  - Stoic Individuals May Go 60 seconds
  - “Oh doctor I can take a lot of pain”
  - Watch Their Blinking
    - There is a difference between “I have endured a lot of pain” and “I can take a lot of pain”
    - Most stoic patients don't mention pain because they don't feel it! (Think about this!)







Palpebral Part



Orbital Part

Orbicularis Oculi



Frontalis



Corrugator Supercilii



Procerus



Nasalis



Risorius



Depressor Anguli Oris



Orbicularis Oris



Zygomaticus Major



Mentalis

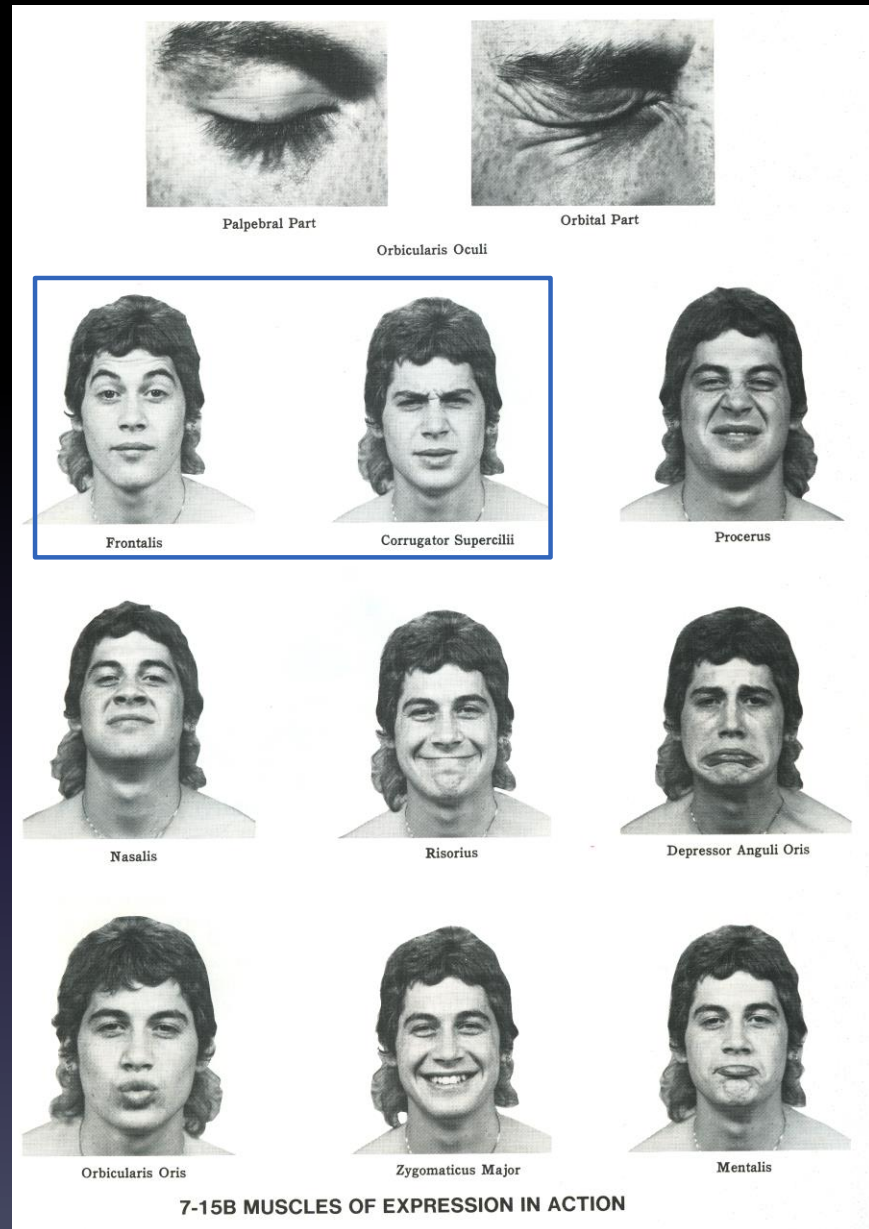
7-15B MUSCLES OF EXPRESSION IN ACTION

# Facial Muscles

Frontalis: Fear Surprise

Corrugator Supercilii: Pain

Dental Training





*Heigh Ho...*

# Miller Pain Scale

Numbers	Descriptions
0	It don't hurt
1	Oh...it ain't nothing/much
2	It hurts a tad bit/smidgen
3	It bothers me some
4	Somethin' ain't right
5	It hurts right smart
6	I'm sufferin' terrible
7	It hurts like far (fire)!
8	It's killin' me!
9	I'm 'bout ta die!
10	Just shoot me!

# Cranial Nerves

## Neurological Testing

# Cranial Nerves

- CN 1 – Olfactory Nerve
  - Sensory only-sense of smell
  - Usually not test routinely
  - Why?

# Cranial Nerves

- CN 2 – Optic Nerve
  - Sensory only-Sense of Sight
  - Multiple Tests Possible
    - Eye Charts
    - Light Reflexes
    - Peripheral Vision
    - Ophthalmoscope\*                      \*Not Included Here

# Optic Nerve

- Rosenbaum Chart
  - Used from 14 inches
  - For Refractive Problems
  - Near Vision
- #Snellen – Far Vision







**Optic Nerve**

**Peripheral Vision**

# Optic Nerve

**Direct Pupillary Light Reflex**



**Indirect Pupillary Light Reflex**



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DEER PHYSICALS

# Cranial Nerves

- CN 3 – Oculomotor Nerve
  - Motor only-eye movements, pupil reactions and blinking
  - Tests
    - Cardinal Planes of Gaze
    - Papillary Light Reflexes
    - Ptosis

# Cranial Nerves

- CN 4 & 6 - Trochlear & Abducens Nerves
  - Motor only-eye movements
  - Tests
    - Cardinal Planes of Gaze

# Oculomotor, Trochlear and Abducens Nerves

- Cardinal Planes of Gaze



# Cranial Nerves

- CN 5 - Trigeminal Nerve
  - Motor and Sensory
  - Tests
    - Motor
      - Muscles of mastication
    - Sensory
      - Facial sensation
    - Motor/Sensory
      - Jaw Jerk Reflex

# Trigeminal Nerve

- Muscles of mastication





# Trigeminal Nerve

- Facial Sensation
- Toothpicks
- Tissue
- Many Daily Activities Involve Facial Sensation
- Maxillary is primary 94%



# Cranial Nerves

- CN 7 – Facial Nerve
  - Motor and sensory-muscles of facial expression and taste
  - Tests
    - Facial expressions
      - Smile (show teeth), raise eye brows
    - Taste

# Facial Nerve

**Smile**



**Raising the brow**



# Cranial Nerves

- CN 8 - Acoustic Nerve
  - Sensory Only-hearing and balance
  - Tests
    - Watch/Finger Rubbing
    - Webber/Rinne
    - Hum Test

# Acoustic Nerve

- Finger Rubbing



# Acoustic Nerve

- Humming/Webber







# POTENTIAL

NOT EVERYONE GETS TO BE AN ASTRONAUT WHEN THEY GROW UP.

[www.despair.com](http://www.despair.com)



# Disauditory Phalanges?

# The inability to snap your fingers

# Cranial Nerves

- CN 9 & 10 – Glossopharyngeal & Vagus Nerves
  - Motor and Sensory-muscles of the pharynx and taste
  - Tests
    - Motor
      - Gag reflex
      - Swallowing
    - Sensory
      - Taste

# Glossopharyngeal & Vagus Nerves

- Gag Reflex



# Glossopharyngeal & Vagus Nerves

- Swallowing Test



# Cranial Nerves

- CN 11 - Spinal Accessory Nerve
  - Motor only-shoulder and neck muscles
  - Tests
    - Trapezius and SCM strength

# Spinal Accessory Nerve

**Trapezius Testing**



**SCM Testing**



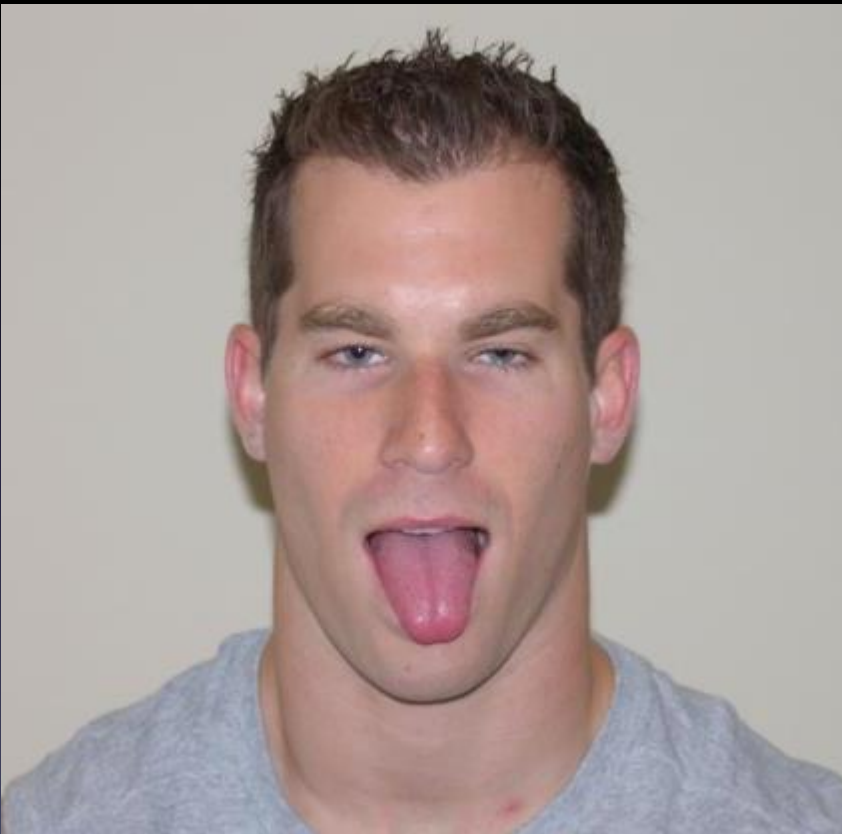
# Cranial Nerves

- CN 12 - Hypoglossal Nerve
- Motor only-Tongue movements
  - Tests
    - Tongue protrusion (Points to pathological side)
    - Articulation of Speech



# Hypoglossal Nerve

**Tongue Protrusion Normal**



**Abnormal**

