Instructor's Review for Final Exams

Who Are These People?
Who is **Hippocrates**?

Thought that disease resulted from natural causes and the body has the power to heal itself. Wrote code of ethics that became the Hippocratic Oath. Hippocrates said: hard rubbing binds... much rubbing causes parts to waste... and moderate rubbing makes them grow.
Originally from Greece. Physician for the school of gladiators who were rubbed before fighting. Wrote book on manual medicine and massage.
Who is Pehr Henrik Ling?

PEHR HENRIK LING (1776-1839)

Pehr Henrik Ling – considered the “father” of Swedish massage, utilized a particular type of massage and exercise in his modality.
Who is Johann Metzger?

Johann Metzger (1817-1893)

Johann Metzger – Dutch physician, who utilized massage as a fundamental component of physical rehabilitation, also introduced French terminology into the profession.
James Cyriax – “father” of orthopedic medicine, he advocated the use of manipulation and deep-tissue (deep transverse friction) massage with active and passive motion to restore mobility.
Ida Rolf - utilized Structural Integration to get the body into homeostasis. Inventor of Rolfing modality.

Ida Rolf (1896 - 1979)
Who is Dr. William Fitzgerald?

Dr. William Fitzgerald (1869-1955)

1913 - Dr. William Fitzgerald rediscovered Reflexology and called it Zone Therapy.
Who is Eunice Ingham?

Eunice Ingham (1889 - 1974)

Eunice Ingham – a physiotherapist who popularized reflexology in North America. Her work is still carried on today by the International Institute of Reflexology.
Irene Simonen Gauthier (1920 - 2010)

Irene Simonen Gauthier – As a founding member of the International Myomassethics Federation and the Association of Michigan Myomassologists, Irene developed an organization which encompasses all forms of bodywork.

Also accredited with coining the word “Myomassology”.

Inducted into the Massage Therapy Hall of Fame in 2012.
Who is *Stanley Lief*?

Stanley Lief (1890-1962)

**Neuromuscular Therapy** was created by Stanley Lief. For a more detailed history of Neuromuscular Therapy see Judith Walker Delaney's website.
Who is Janet Travell?

Janet Travell (1901 - 1997)

Janet Travell – Developer/Researcher of Trigger Point Therapy. Was the physician for President John F. Kennedy.
Who is William Garner Southerland?

William Garner Southerland
(1873-1954)

Craniopathy is the study of the musculoskeletal system of the skull and cerebrospinal fluid (CSF) flow, as well as intracranial pressure, (ICP) and compliance in the brain and cord. Craniopathy was founded by Dr. Sutherland, an Osteopath.
Who is John Upledger?

John Upledger (1932-2012)

Dr. John E. Upledger is co-founder of The Upledger Institute, Inc. and former medical director of Upledger Clinical Services. Born on February 10, 1932 in Detroit, Michigan. Founder of Cranial Sacral Therapy.
Who is John Barnes?

The John F. Barnes' Myofascial Release Approach consists of the gentle application of sustained pressure into fascial restrictions within the body.
Who is Margaret Machado?

Aunty Margaret was in her 50’s when she began teaching the gift of Lomi Lomi that was previously held sacred and secret for Hawaiian families only. This icon of healing, Aunty Margaret, broke the rules of keeping the kahuna “secrets” secret. She is the chief promoter of Lomi Lomi massage to the Western population.

Aunty Margaret Machado (1916-2009)
Mikao Usui Sensei is the founder of Reiki Ryoho (healing art or method). He attained enlightenment and a healing ability in 1922 at the age of 57. This happened while he was fasting and meditating on Mt. Kurama in Kyoto, the ancient capital city of Japan.
Who is F.M. Alexander?

F.M. Alexander (1869-1955)

1900's early- The Alexander Technique was developed by an Australian actor F.M. Alexander.
1934 - Wilhelm Reich - Austrian psychoanalysis. Freud’s student. Used Somato techniques to dissolve muscular armor. Attempted to cure neuroses by releasing their corresponding muscle tensions by using breath, movement and physical manipulation.
Who is Dr. George J. Goodheart?

George J. Goodheart, DC. (1918 –2008)

1964 - Applied Kinesiology was founded by Chiropractor George Goodheart.
Bioenergetics created by Alexander Lowen, emerged from Reich’s work. Lowen broke away from working with Reich to create Bioenergetics.
Who is Dr. John Pierrakos?

John Pierrakos (1921-2001)

1971-Core Energetics Started by Dr. John Pierrakos in 1971, core energetics adds a more spiritual aspect to bioenergetics.
Dr. Moshé Feldenkrais (1904-1984)

The **Feldenkrais Method** is an educational system intended to give a greater functional awareness of the self. The method uses movement and awareness as the primary vehicle for learning.
Who is Dr. Fritz Smith?

Dr. Fritz Smith (1929- still living)

1973-Zero Balancing was developed by osteopath and acupuncturist Dr. Fritz Smith.
Connective Tissue Therapy (CTT), Connective Tissue Massage (CTM), *Bindegewebsmassage*, developed by Elizabeth Dicke in Germany in 1929 and is well known throughout the world but less known in the United States. Using zones as a guide, reflex points were found in the subcutaneous fascia that effect other parts of the body.
Who is Milton Trager, M.D?

Utilizing gentle, non-intrusive, natural movements, The Trager Approach helps release deep-seated physical and mental patterns and facilitates deep relaxation, increased physical mobility, and mental clarity. These patterns may have developed in response to accidents, illnesses, or any kind of physical or emotional trauma, including the stress of everyday life.
Laws of Neuromuscular Therapy
Sherrington’s Law – when a muscle receives a nerve impulse to contract, its antagonist simultaneously receives an impulse to relax – also known as reciprocal inhibition.
What is Davis’ Law

**Davis’ Law:** “If muscle ends are brought closer together, then the pull of the tonus is increased, thereby shortening the muscle, which may even cause hypertrophy. If the muscle ends are separated beyond normal, then tonus is lessened or lost, thereby “weakening the muscle.”

**NMT:** This law allows the NMT therapist the ability to loosen a hypertonic muscle by manipulating the Golgi tendon organs.
What is Hilton’s Law?

Hilton’s Law: “A nerve trunk that supplies a joint also supplies the muscles of the joint and the skin over the insertion of such muscles.” (1804-1878, English Surgeon)

NMT: Whenever the integrity of a joint is threatened the muscles and skin surrounding the joint become hypertonic and “guarding”. Ischemia results. This allows the NMT therapist to do skin rolling and other techniques to help reduce ischemia and pain.
Normal Reflex Arc

NORMAL REFLEX ARC

- Normal Skin Function
- Normal Muscle Tone
- Normal Joint Movement

Hilton's Law

Skin

Muscle

Joint

Vessels

Viscera

Normal Vascular Function

Internuncial Pool

Anterior Root

Posterior Root

Peripheral Nerve

Afferent Impulses

Efferent Impulses
Pathological Reflex Arc

Physiopathological Reflex Arc

- Pain Awareness
  - Posterior Root
  - Peripheral Nerve

- Increased Afferent Impulses
- Increased Motor Stimuli

- Normal Skin Function
- Normal Joint Movement
- Normal Visceral Function
- Normal Vascular Function

- Disturbance in Internuncial Pool
- Anterior Root

- Increased Epidermal Constriction
- Increased Muscle Tonus
- Increased Intrajoint Pressure
- Decreased Visceral Function
- Vasocostriction

- Skin
- Muscle
- Joint
- Viscera
- Vessels
Physiopathological Reflex Arc with Referred Pain

Somatic to Somatic
Somatic to Viscera
Viscera to Viscera
Viscera to Somatic

Systemic Pain
Arndt Shultz’s Law: the pharmacologic principle of homeopathy, discovered by 19th century scientists, Hugo Schulz and Rudolf Arndt. It says that weak stimuli accelerate physiologic activity, medium stimuli inhibit physiologic activity, and strong stimuli halt physiologic activity. (1835-1900, Psychiatrist)

NMT: This law allows the NMT therapist to apply pressure to trigger points and ischemic areas thereby inhibiting the neurological reflex arc or circuits that underlie them.
Wolff’s Law - The Law of Bone Transformation: “Every change in the form and the foundation of a bone, or in its function alone, is followed by certain definite changes in its internal architecture and secondary alterations in its external conformation.” (Form follows function-German Physician)

NMT: Deformation (resulting from strain) imposed on an elastic body is in proportion to the stress/load placed on it. Gravity itself is such a force and can only be resisted with optimal efficiency only with a balanced posture. Gravity cannot fix what it deforms.
**Law of Facilitation:** “When an impulse has passed through a certain set of neurons to the exclusion of others, it will tend to take the same course on a future occasion, and each time it traverses this path the resistance will be less.”

**NMT:** Vicious pathological reflexes may refer up or down the spinal cord and then out to peripheral tissues at any nerve root level. They often follow the path of least resistance, a previously facilitated pathway such as that created by a prior injury or overuse syndrome.
Newton’s Law of Motion: “To every action there is always an opposed equal reaction; or the mutual actions of two bodies upon each other are always equal, and directed to contrary parts.”

NMT: If one shoulder is high, the other is low. If one shoulder protrudes, the other shoulder is retracted.
Righting Reflexes: “Reflexes which, through various receptors in the labyrinth, eyes, muscles, or skin, tend to bring the body into its normal position in space and which resists any force acting to put it into a false position.”

NMT: Compensation takes place in the structure of the body due to the Righting Reflexes. Equilibrium can be a subjective event.
Pfluger’s Laws

1. Law of Unilaterally
2. Law of Symmetry
3. Law of Intensity
4. Law of Radiation (referred pain).
5. Law of Generalization

Eduard Friedrich Wilhelm Pflüger
1829-1910
Pfluger’s Laws Defined

1. **Law of Unilaterally:** if a mild irritation is applied to one or more sensory nerves, the movement will take place usually on one side only, on the side which is irritated.

2. **Law of Symmetry:** If the stimulation is sufficiently increased, motor reaction is manifested, not only by the irritated side, but also in similar muscles on the opposite side of the body.

3. **Law of Intensity:** Reflex movements are usually more intense on the side of irritation; at times the movements of the opposite side equal them in intensity, but they are usually less pronounced.
4. **Law of Radiation (referred pain).** If the excitation continues to increase, it is propagated upward, and reactions take place through centrifugal nerves coming from the cord segments higher up.

5. **Law of Generalization:** Systemic Pain...hurts all over. When the irritation becomes very intense, it is propagated in the Medulla Oblongata, which becomes a focus from which stimuli radiate to all parts of the cord, causing a general contraction of all muscles of the body.
Basic Review

Plain & Simple Guide to Therapeutic Massage & Bodywork Examinations

Anatomy, Physiology
1. The basic unit of life is the ______.

   a. Atom
   b. Cell
   c. Molecule
   d. Organelle
2. The study of the structure of the body is called ______.

a. Kinesiology

b. Neurobiology

c. Pathology

d. Anatomy
3. *Cephalad* means ______.

a. Toward the feet

b. In the middle of the torso

c. Toward the head

d. Toward the pelvis
4. Antibodies are molecules of ______ involved in the immune response of the body.

a. Carbohydrates
b. Lipids
c. Antibiotics
d. Proteins
5. *Etiology* is the study of ______.

a. The cause of disease

b. The sex organs

c. Insects

d. Emotions
6. The condition characterized by swelling, heat, redness, and pain is known as _____.

   a. Chicken pox
   b. Fibromyalgia
   c. Cushing syndrome
   d. Inflammation
General Review

7. In the Western anatomic position, the human body is ______.

   a. Standing erect, facing forward, arms at side, palms facing forward

   b. Standing erect, facing forward, arms straight out, palms facing forward

   c. Standing erect, facing forward, arms at side, palms facing backward

   d. Standing erect, facing forward, arms bent at elbow, palms facing up
8. The pericardial cavity is located within the ______.

a. Abdominopelvic cavity
b. Cranial cavity
c. Spinal cavity
d. Thoracic cavity
The study of the tissues of the body is referred to as _______.

a. Histology
b. Phrenology
c. Molecular biology
d. Physiology
General Review

10. A short, severe episode is referred to as ______.

   a. Chronic
   b. Acute
   c. Terminal
   d. Minute
11. The ability of an organism to cause disease is referred to as ______.

   a. Hyperplasia
   b. Pandemic
   c. Virulence
   d. Asepsis
12. The human body is an ______.

a. Anaerobe
b. Organism
c. Organ system
d. Anomaly
13. The increase in symptoms or severity of a condition is a(n) ______.

a. Endemic
b. Inflammation
c. Exacerbation
d. Malignancy
14. The _____ plane divides the body into upper and lower sections.

a. Transverse
b. Frontal
c. Coronal
d. Sagittal
A disease of unknown origin is referred to as _______.

a. Idiopathic
b. Pandemic
c. Ideologic
d. Epidemic