ALIGNMENT MATTERS
THE FIRST FIVE YEARS OF KATY SAYS

STUDY GUIDE
Objectives
To learn the history of the Katy Says blog.
To be introduced to the history of biomechanics.
To be introduced to the history of exercise.
To be introduced to the 25 Points of Alignment.
To be introduced to Natural and Reflex-driven movement.

Vocabulary
biomechanics
kinesiology
biological science
physical science
physiology
physics
anatomy
geometry
kinematics
kinetics
engineering
medicine
alignment
stress riser
natural movement
reflex-driven movement

Quiz
1. Can you explain, in general, why alignment matters?

2. Define what is meant by diseases of affluence. List some of these diseases.
3. Explain the difference between exercise and movement.

4. What is the difference between alignment and posture?

5. Explain the philosophical difference between trying to walk vs. ride a bike in “optimal alignment.”

Supplemental Material


www.facebook.com/AlignedandWellProgram


Blog: Biomechanists Wanted, written September 6, 2012

Blog: October Ramblings, written October 8, 2012

Blog: About This Blog, in 2013, written December 29, 2012

For more information on General Semantics, visit: www.generalsemantics.org
Objectives

To list the difference between intrinsic and extrinsic foot musculature.
To understand the basics of basal metabolic rate.
To be able to explain the direct effect heel height has on the body.
To understand what a bunion is and how it is formed.

Vocabulary

intrinsic muscle
extrinsic muscle
basal metabolic rate
hallux
hallux valgus
bunion
plantar fasciitis

For Physical Practice

DVD: Fix Your Feet
DVD: Get Your Balance Back
DVD: Knees & Hips
DVD: Easy Rx for Diabetics
Alignment Snacks (RE): Balance . . . with Lateral Hips
Alignment Snacks (RE): Stretching the Standing Muscles
Alignment Snacks (RE): Walk this Way! Stand this Way
Institute Course: Save Your Knees: Build a Butt

Quiz

1. What designates an intrinsic foot muscle from an extrinsic one? Use an anatomical reference to see the location of these two classes of muscles. List 5 of each type (extrinsic/intrinsic).
2. Is there “ideal” human footwear? What are the components of an ideal shoe?

3. Describe a negative feature of flip flops (thong-style sandals) and how this feature can affect gait.

4. Describe the effects high heels have on alignment and how this can impact a condition like osteoporosis.

5. How is the basal metabolic rate determined? How can body mechanics impact one’s BMR?

6. What is neuropathy? Why is it of such concern to diabetics?

7. Explain some of the (foot) environmental causes of bunion formation.

8. What areas of the body can be affected by footwear?

10. Why does the calf stretch appear on almost all of Aligned and Well DVDs?

Supplemental Material


Katy Says Radio Interview with Dr. Fitness and Fat Guy: High Heels and Foot Pain

http://www.japmaonline.org/content/99/6/512.full.pdf+html


Blog: Raise your . . . foot, written May 7, 2012


http://nymag.com/health/features/46213/

http://layogamagazine.com/content/index.php?option=com_content&task=view&id=663

http://www.livestrong.com/slideshow/1007576-12-easy-anytime-moves-strengthen-feet-ankles/

http://youtu.be/Y3zquzgF9MM


http://youtu.be/cxhR3ZNV72I


http://www.runnersworld.com/running-shoes-gear/barefoot-running-minimalism

http://www.runnersworld.com/running-shoe-reviews/less-more?page=single


http://www.chrismcdougall.com/barefoot.html


http://www.earthbrands.com/kalsoearthshoe/kalso-faq


http://pamhouston.wordpress.com/books/
http://fas.sagepub.com/content/4/3/141.full.pdf+html


http://www.podiatrytoday.com/article/8355

http://bareessentialsMagazine.uberflip.com/i/187233/11

http://www.katysays.com/stick-your-landing/

http://www.katysays.com/shoes-the-winter-list/
Objectives

Be able to explain the condition of osteoarthritis.
Gain an understanding of hypermobility, its two general presentations, and how they differ.
Understand the condition, “degenerative disc disease” and its etiology.
Understand the relationship and impact that pelvic position has on the hamstrings and knees.

Vocabulary

osteoarthritis
meniscus
coccyx
femoral head

For Physical Practice

DVD: Below the Belt for Men
DVD: Fix Your Feet
DVD: Down There for Women
DVD: Knees and Hips
Alignment Snacks (RE): A Balanced Approach to Hip Strength
Alignment Snacks (RE): All Around the Thighs We Go
Alignment Snacks (RE): Balance . . . with Lateral Hips
Alignment Snacks (RE): Hips Don’t Lie - They Sit
Alignment Snacks (RE): Leg Goes Forward; Leg Goes Back
Alignment Snacks (RE): Quads and Hams
Alignment Snacks (RE): Stretching the Standing Muscles
Alignment Snacks (RE): Walk this Way! Stand this Way
Institute Course: Save Your Knees
Institute Course: The Science of Psoas
Quiz

1. Is osteoarthritis a systemic disease? How can it occur? What exacerbates OA and makes it better?

2. Name the primary muscle the Number 4 stretch is intended to work on. Where is it located? Can you describe how sciatica might be associated with the tightness of this muscle? (Use an anatomy reference for visuals on the sciatic nerve and piriformis’ physical relationship.

3. Explain the mechanism of injury involved in pelvic tucking and the impact it has on the knee joint. How can one alleviate this problem? Why are so many of the exercises for the knee and the pelvic floor the same?

4. The hamstrings affect what kind of motion at the knee, hip, and pelvis, respectively?

5. In what way can an overly tight (shortened) hamstring affect the pelvic floor?

6. When performing hamstring stretches, what is the purpose of maintaining contact between the “ground” leg and the floor?

7. Explain how to perform a forward bend using the hip hinge only? What are your visual objective markers?

8. List five specific movements one can make to reduce the loads (and pain) on inflamed knees with osteoarthritis.

9. T or F: Bone spurs are genetic and are exacerbated by tight musculature. Explain.

Supplemental Material

youtu.be/qcGYP4BMdIU

youtu.be/DEMpIrKpnNs


http://youtu.be/cD1eu_QL51U

http://youtu.be/qcGPY4BMdlU

http://youtu.be/mTZREaLhV28

http://www.amazon.com/Every-Womans-Guide-Foot-Relief/dp/193666107


http://www.livestrong.com/slideshow/1007576-12-easy-anytime-moves-strengthen-feet-ankles

http://youtu.be/Y3zquzgF9MM


http://www.katysays.com/stick-your-landing/
Objectives

To understand the importance of pelvic positioning, what alters it, and how its static position impacts the function of the pelvic floor.
To understand the functional benefit of doing a squat and how different squats affect different muscles.
To understand the basic difference between a ligament and tendon as it pertains to its attachment and ability to support a load.
To understand the effect heeled shoes have on the pelvic floor and why.
To understand the difference between walking on a treadmill and walking over ground.
To understand how the alignment of the pelvis impacts bone health and can prevent musculoskeletal injury.
To recognize signs of pelvic floor disorder, the mechanics of this disorder, and how to prevent it by altering through movement habits.

Vocabulary

kegel
cremaster
weight
proprioception
osteopenia
osteoporosis
osteogenic
pelvic floor
pelvic floor disorder
prolapse

For Physical Practice

DVD: Below the Belt for Men
DVD: Down There for Women
DVD: Fix Your Feet
DVD: When You Hurt All Over
Alignment Snacks (RE): All Around the Thighs We Go!
Alignment Snacks (RE): All Fo’ the Pelvic Flo’
Alignment Snacks (RE): Hips Don’t Lie - They Sit
Alignment Snacks (RE): Frankie Says: Relax the Psoas
Institute Course: No More Kegels
Institute Course: Science of Psoas

Quiz

1. Where do the majority of the muscles of the pelvic floor attach? Describe their effects on the sacrum.

2. Is pelvic floor disorder only found in women?

3. When performing the double calf stretch, what should the lumbar spine look like (from side view)?

5. List the squat-prep exercises? Why are the squat-prep exercises necessary and why do most people need the squat-prep exercises more than the actual squat exercise?

6. What is the principal difference between the load-bearing property of a tendon vs. a ligament? How does the failure to innervate a muscle increase the tendency to overload and/or injure a ligament supporting a particular joint/area?

7. What bearing does sacral position have on the pelvic floor?

8. When performing a squat, how does the position of the shin(tibiae) affect the force generation of the gluteal muscles?

9. What are some reasons women tend to have more knee and pelvic floor disorders?

10. How high is the heel of a “sensibly-heeled” shoe?
11. What is the difference between walking on a treadmill and walking on the ground?

12. What effect does sitting on your sacrum have on the pelvic floor?

13. List five musculoskeletal conditions that are negatively affected by an anterior displacement of the pelvis.


15. What does it mean to have “pelvis forward”? List 10 musculoskeletal conditions this position impacts.

16. How can an anterior pelvis contribute to poor foot health?

17. What is pelvic organ prolapse? What is it caused by? What is it typically blamed on?

Supplemental Material

http://www.amazon.com/Every-Womans-Guide-Foot-Relief/dp/1936661071


Rossi-FootwearPrimaryCauseFootDisorders.pdf

http://youtu.be/fjbfXzOIoCY

http://mamasweat.blogspot.com/2010/05/pelvic-floor-party-kegels-are-not.html


http://www.pinterest.com/rachelmareei/katy-my-hero/


http://www.journals.elsevierhealth.com/periodicals/eururo/article/PIIS0302283808000559/fulltext


http://journals.lww.com/greenjournal/Abstract/2012/11000/Pelvic_Muscle_Strength_After_Childbirth.7.aspx

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3178744/


http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0047133


http://youtu.be/of1h2v4pKhc

https://www.alignedandwell.com/shop/down-there-for-women/

https://itunes.apple.com/app/down-there-for-women/id517486431?mt=8


http://liveinyourbodyaligned.blogspot.com/2013/02/male-pelvic-painpelvic-floor-disorder.html


https://sexybacksummit.com/order/


http://mamasweat.blogspot.com/2013/05/exercise-detox-give-your-psoas-break.html

http://www.restorativeexercise.com/super-supple-shoulders/

http://www.restorativeexercise.com/alignment-snacks/

Objectives

To understand the role of “core strength.”
To understand that the effect rib and pelvic alignment have on the function of the abdominals.
To be aware of the relationship between abdominal and back strength.
To understand the impact the abdominal muscle group has on the cardiovascular system.
To understand the mechanical contributors to constipation and what movements can be performed to prevent this problem.
To understand transversus abdominis activation and relaxation.
To understand alignment and its effect on internal pressures of the thoracic, abdominal and pelvic cavities.
To learn what habits increase intra-abdominal pressure.
To understand how the psoas affects the pelvis, hips, ribs and spine.

Vocabulary

core
psoas
transversus abdominis
hiatal hernia
diastasis recti
prolapse
psoas
rectus abdominis
linea alba
peristalsis

For Physical Practice

DVD: Smart Digestion
DVD: Biomechanics for Bad Backs
DVD: When Your Doctor Prescribes Exercise
DVD: Easy Rx...ercise for Diabetics
Alignment Snacks: Adductor Madness
Alignment Snacks: Let’s Do the Twist
Alignment Snacks: Take a Load Off Your Chest . . . and Your Hips, Too
Alignment Snacks: The Back Bones Connected to Other Backbones
Alignment Snacks: Twistin’ the Night Away
Alignment Snacks: Just a Dab of Abs
Alignment Snacks: Frankie Says: Relax the Psoas
Institute Course: Science of Psoas
Institute Course: Those Hard to Reach Areas
Read instructions on low lunge, p. 160.

Quiz

1. What does having “good core strength” mean?

2. Why is it necessary to vary a movement program?

3. Why is a waist-to-hip ratio an indicator of the state of one’s cardiovascular health?

4. What can a person do “alignment-wise” to prevent build-up of extra gas in the digestive system?

5. What is audible flatulence a sign of?

6. Weak muscles can be: a. too tight
               b. too loose
               c. none of the above
               d. a & b

7. Name two physical forces that can contribute to constipation. What are some movements to help undo this stagnation?

8. To prevent compression of the lumbar vertebrae, what muscle group innervates regularly?
9. A lack of lumbar curve (in this example) indicates what habit?

10. Name some physical consequences of “sucking in” the abdomen.

11. What are some of the reasons the psoas may fail to yield?

12. T or F. The length and therefore electrical flow of the psoas are dependent on skeletal position.

13. List three cavities in the body (besides dental caries). How does alignment and habit affect the internal pressure of these cavities? Correlate cavity pressures with the three presentations of herniae: abdominal, hiatal and inguinal.

13. List three ways intra-abdominal pressure is increased?

14. How does the psoas move the rib cage?

15. What issues can an un-yielding psoas exacerbate?

16. What are some movement/alignment tips to prevent digestive upset?

Supplemental Material

http://www.idealfit.com/fitness-library/can-this-psoas-be-saved

http://michaelpollan.com/books/the-omnivores-dilemma/

http://www.animalvegetablemiracle.com/

http://www.takepart.com/foodinc

http://www.kingcorn.net/

http://www.coreawareness.com/podcasts/bio-mechanics-bowman/

http://youtu.be/F3j_gQdicWI

http://youtu.be/RL99Ih57qh0
http://www.katysays.com/rua-rib-thruster/


Objectives

To be aware of habits that can exacerbate problematic menstruation.
To understand the impact of movement on the mechanics of the lymphatic system.
To understand the role alignment has on conditions such as osteoporosis, foot pain/ailments, and pelvic floor disorder.

Vocabulary

menstruation  
nightlighting  
pineal gland  
melatonin  
endometrium  
lymphatic system  
lymphedema

For Physical Practice

DVD: When You Can’t Breathe  
DVD: When You Hurt All Over  
DVD: When Your Doctor Prescribes Exercise  
DVD: From the Shoulders Up  
DVD: My Hands Hurt  
Alignment Snacks: A Real Pain in the Neck  
Alignment Snacks: Can’t Get Enough of Shoulders  
Alignment Snacks: Everybody Needs a Little Shoulder Bolster  
Alignment Snacks: Gotta Get Down to (Arm) Swingtown  
Alignment Snacks: Rhomboid Madness  
Alignment Snacks: Take a Load Off Your Chest . . . and Your Hips, Too  
Institute Course: Super Supple Shoulders  
Institute Course: The Best 50 Minutes on the Exercise Ball
Institute Course: Those Hard to Reach Areas
Institute Course: Hidden Kyphosis

Quiz

1. How does movement (and alignment) impact the workings of your lymph system?

2. What is the “egg-hole” test and what is it an indicator of?

3. Outline what gentle stretching exercises are beneficial for the movement of lymph, blood, and electricity in the upper extremities and neck.

Supplemental Material

http://www.amazon.com/dp/1583331824/ref=rdr_ext_tmb

http://the-medical-dictionary.com/hyperprolactinemia_article_6.htm


http://www.livescience.com/1864-bras-support-bouncing-breasts-study-finds.html


http://newscenter.berkeley.edu/2012/12/17/malignant-breast-cells-grow-normally-when-compressed/

http://www.ted.com/talks/mina_bissell_experiments_that_point_to_a_new_understanding_of_cancer.html

http://jcb.rupress.org/content/128/6/1111.full.pdf


Objectives

To understand the correlation between arm/hand position and what it says about shoulder alignment, muscular innervation and its impact on lymph drainage.
To understand the function of reflex-driven reciprocal arm swing.

Vocabulary

biceps brachii
triceps brachii
latissimus dorsi
centrifugal force
centripetal force
glenohumeral joint
scapula
rhomboids
rotator cuff
sternum
carpal tunnel
temporomandibular joint

For Physical Practice

DVD: When You Hurt All Over
DVD: When Your Doctor Prescribes Exercise
DVD: My Hands Hurt
Alignment Snacks: Can’t Get Enough of Shoulders
Alignment Snacks: Gotta Get Down to (Arm) Swingtown
Alignment Snacks: Rhomboid Madness
Alignment Snacks: Within Reach
Institute Course: Super Supple Shoulders
Institute Course: Those Hard to Reach Areas
Institute Course: Hidden Kyphosis

Quiz

1. What is the position of the arms and hands when they are described as “macho man”? What is this an indication of?

2. When walking, how does “fitness pumping” one’s arms in front of the body impact the neck, thoracic spine and shoulders?

3. T of F: Bending your arms at the elbow reduces the energy you expend during a bout of walking?

Supplemental Material

http://youtu.be/PCN8Xa94kPg


http://youtu.be/904_CkMqkmo


http://youtu.be/A0fgreEqeoU


Objectives

To understand the impact the position of the head and neck have on circulation and swallowing.
To understand how arterial plaque accumulation is exacerbated by alignment of the cervical spine.
To assess the position of the clavicles and understand the relationship between clavicular position and the health of the head and neck.
To learn what comprises the glenohumeral joint.
To understand optimal positioning of the scapula and what this positioning supports.
To understand the relationship between mastication and bone health of the face and jaw.
To learn the basics of muscle function about the eye, seeing long vs. short distances, and how to “release” the muscles of the eye.

Vocabulary

conduction deafness
myopia
hyperopia
presbyopia
supination
clavicle
pronation
scapula
cilia
mastication
ciliary muscle
inertia
hyperkyphosis
For Physical Practice

DVD: When You Can’t Breathe
DVD: From the Shoulders Up
DVD: My Hands Hurt
DVD: When Your Doctor Prescribes Exercise
Alignment Snacks: A Real Pain in the Neck
Alignment Snacks: Can’t Get Enough of Shoulders
Alignment Snacks: Everybody Needs a Little Shoulder Bolster
Institute Course: Super Supple Shoulders
Institute Course: The Best 50 Minutes on the Exercise Ball
Institute Course: Those Hard to Reach Areas
Institute Course: Hidden Kyphosis

Quiz

1. Strain on what part of the body can lead to conditions such as headache, disc problems and “foggy head”?

2. How many different types of human hair are there?

3. What is one (mechanical) solution to having healthier hair and skin? What are major contributors to hair loss and why? Thin and unhealthy hair may be an indicator of what?

4. What is necessary for the proper movement of earwax?

5. Those who elevate their clavicles also elevate their shoulders. What effect does this have on head position, cervical spine alignment and circulation? What is the normal position of the clavicles. What muscles help stabilize the clavicles. What habits increase clavicular elevation?

6. What conditions are classified under the category “shoulder impingement syndrome”.

7. What is the optimal position of the scapula. What is it’s impact on the spine?

8. Name two things that decrease the function of cilia. Name some movements about the head that work to increase sinus pressure.
9. How do the hands, arms, elbows present in someone who has significant internal rotation of the humerus?

Supplemental Material

http://youtu.be/PCN8Xa94kPg


http://en.wikisource.org/wiki/Perfect_Sight_Without_Glasses

http://youtu.be/Fmg9ZOHESgQ


https://www.yogatuneup.com/self-massage-therapy-balls-programs


http://youtu.be/vCoD_Q4mdw
http://positivelyaligned.com/2013/03/backyard-fun/
http://alignmentmonkey.nurturance.net/2013/pull-ups-help


Objectives

To understand the impact walking and squatting have on bone development, muscular length, alignment and the facilitation of childbirth.
To understand the amount of deconditioning our modern lifestyle has permitted, what habits contribute and what natural movement can be performed to restore a body and make one more prepared for pregnancy/delivery.
To understand the importance of stimulating a young child’s foot by not confining them to shoes at an early age.
To be aware of the styles of shoes that encourage good foot health.

Vocabulary

nulliparous
whole-body endurance
law of specificity
physiological adaptation
uterus
myometrium
relaxin
pubic symphysis
placenta
hematoma
brachiate
continual feeding
abduction
proprioception
interneuron

For Physical Practice

DVD: Fix Your Feet
DVD: When You Hurt All Over
Quiz

1. Besides birthing, what will walking and squatting programs help to optimize?

2. What are the positional cues for the tailbone, spine, knees, shins when performing a squat?

3. How can chronic tension of the psoas, pelvis and lower extremities work against the downward forces during childbirth?

4. Describe the components of natural movement that enhance one’s birth preparation. What should be altered in the program as it pertains to conception?

5. The fluid dynamics of the uterus are drastically affected by _____________.

6. T or F. The hormone relaxin will soften tight pelvic floor muscles when the time comes to birth.

7. What tissues does relaxin target?
8. Why is it important that children (and everyone) get abundant barefoot time?

9. What are some general shoe recommendations and activities that encourage good foot health?

10. Outline some healthy habits we can encourage in babies and kids to improve their “natural strength”.

Supplemental Material

http://fitbottomedmamas.com/2012/09/breech-babies-is-there-anything-you-can-do/


http://www.youtube.com/watch?v=IIv20mScP8


http://www.ncbi.nlm.nih.gov/pubmed/9302671

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3019576/

http://www.clinbiomech.com/article/S0268-0033(04)00042-7/abstract

http://ptjournal.apta.org/content/80/3/261.full.pdf+html

http://www.royte.com/blog/


http://www.booknoise.net/tapirsmorningbath/index.html


http://youtu.be/of1h2v4pKhc


http://youtu.be/kEehiyMFzL0


http://spinningbabies.com/

http://en.wikipedia.org/wiki/Human_subject_research#Ethical_Guidelines_Governing_Human_Subject_Research

http://spinningbabies.com/techniques/the-inversion


http://youtu.be/kg4muXeTnjA


http://youtu.be/3yAbBLs0WNs


http://journals.lww.com/greenjournal/Abstract/2012/11000/Pelvic_Muscle_Strength_After_Childbirth.7.aspx

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3178744/


http://www.kathydettwyler.org/dettwyler.html

http://www.brianpalmerdds.com/bfeed_oralcavity.htm
Hunter-Gatherer Childhoods: Evolutionary, Developmental & Cultural Perspectives


http://www.slate.com/blogs/how_babies_work/2013/05/07/diapers_make_walking_more_difficult_for_babies.html


http://en.wikipedia.org/wiki/Elimination_communication

http://youtu.be/ERNmBOOLoWA


Objectives

To understand that gait patterns are greatly influenced by habits and observation.
To recognize the difference between active propulsion and controlled falling in one’s gait pattern.
To learn how treadmill walking creates different loads and results in a different physical adaptation than over-ground walking.

Vocabulary

gait
walking
running
G-force
gluteals
lateral hip musculature
hamstrings
adductor muscles

For Physical Practice

DVD: Fix Your Feet
DVD: Get Your Balance Back
DVD: Biomechanics for Bad Backs
DVD: Easy Rx ...ercise for Diabetics
DVD: Down There for Women
DVD: Knees & Hips
DVD: Below the Belt for Men
DVD: Biomechanics for Strong Bones
DVD: When You Hurt All Over
Alignment Snacks: Adductor Madness
Alignment Snacks: A Balanced Approach to Hip Strength
Alignment Snacks: All Around the Thighs We Go!
Alignment Snacks: Balance . . . with Lateral Hips
Alignment Snacks: Hips Don’t Lie - They Sit
Alignment Snacks: Leg Goes Forward; Leg Goes Back
Alignment Snacks: Quads and Hams
Alignment Snacks: Stretching the Standing Muscles
Alignment Snacks: Walk this Way! Stand this Way
Alignment Snacks: Frankie Says: Relax the Psoas
Institute Course: Save Your Knees
Institute Course: Science of Psoas
Institute Course: Those Hard to Reach Areas
Institute Course: Hidden Kyphosis

Quiz

1. Using the classic definitions of walking and running, how does the activity of one’s center of mass differ when walking vs. running?

2. Why do so many of us walk like our parents?

3. Explain why regular walking is essential to biological function?

Supplemental Material

http://youtu.be/ImyBAW_9irQ

http://youtu.be/iMkYPXXLqJs

http://youtu.be/PDBb1n5_-nk

http://youtu.be/Js9jeGy_6NA

http://youtu.be/qcGPY4BMdlU

http://youtu.be/wH6SNijSPgU


http://youtu.be/qcGPY4BMdIU


Chapter eleven

CARDBIOVASCULAR SYSTEM

Objectives

To understand the effect sitting has on the cardiovascular system.
To understand the basic mechanics of blood flow (hemodynamics).
To understand how turbulent blood flow causes plaque accumulation in blood vessels and what can be done to prevent it.
To understand that bouts of exercise do not offset the effects of sitting.

Vocabulary

plaque
cholesterol
turbulent flow
laminar flow
hemodynamics
viscosity
hypertension

For Physical Practice

DVD: Fix Your Feet
DVD: Get Your Balance Back
DVD: Biomechanics for Bad Backs
DVD: Easy Rx . . .ercise for Diabetics
DVD: Down There for Women
DVD: Smart Digestion
DVD: Knees & Hips
DVD: Below the Belt for Men
DVD: When You Can’t Breathe
DVD: Biomechanics for Strong Bones
DVD: When You Hurt All Over
DVD: When Your Doctor Prescribes Exercise
DVD: From the Shoulders Up
DVD: My Hands Hurt
Alignment Snacks: Adductor Madness
Alignment Snacks: A Balanced Approach to Hip Strength
Alignment Snacks: All Around the Thighs We Go!
Alignment Snacks: Balance . . . with Lateral Hips
Alignment Snacks: Hips Don’t Lie - They Sit
Alignment Snacks: Leg Goes Forward; Leg Goes Back
Alignment Snacks: Let’s Do the Twist
Alignment Snacks: Quads and Hams
Alignment Snacks: Stretching the Standing Muscles
Alignment Snacks: The Back Bones Connected to the Other Backbones
Alignment Snacks: Twistin’ the Night Away
Alignment Snacks: Walk this Way! Stand this Way
Alignment Snacks: Just a Dab of Abs
Alignment Snacks: Frankie Says: Relax the Psoas
Institute Course: Save Your Knees
Institute Course: Super Supple Shoulders
Institute Course: The Best 50 Minutes on the Exercise Ball
Institute Course: Science of Psoas
Institute Course: Those Hard to Reach Areas
Institute Course: Hidden Kyphosis

Quiz

1. T or F. Research shows sitting is harmful because if you sit you will be obese.

2. What is a mechanical precursor for plaque to accumulate on vessel walls?

3. What increases the chances of blood cells hitting blood vessel walls?

4. T or F: Your artery geometry is unaffected by body posture.

5. How can vigorous exercise be just as damaging to blood vessel walls as sitting can?

6. Name some causes of turbulent blood flow and what can be done to address them.
7. What must one be aware of when engaging in very vigorous exercise if they are dealing with hypertension?

**Supplemental Material**

http://www.amazon.com/The-Physics-Cerebrovascular-Diseases-Biophysical/dp/1563965585


http://biomedgerontology.oxfordjournals.org/content/56/5/M298.short


http://hyper.ahajournals.org/content/18/5/575.short
Objectives

To understand the difference between movement and exercise.
To understand the similarities between a food “diet” and a “movement” diet.
To understand “movement is medicine” and a movement prescription is just as influential as a pharmaceutical one.
To understand that movement activities must be varied.
To understand the detriment sitting has on the body.

Vocabulary

inertia
exercise
performance
fitness
strength-to-weight ratio
osteogenesis
flexibility
stability
valsalva

For Physical Practice

DVD: Fix Your Feet
DVD: When You Hurt All Over
DVD: Get Your Balance Back
DVD: Smart Digestion
DVD: Down There
DVD: Knees & Hips
DVD: When Your Doctor Prescribes Exercise
DVD: When You Can’t Breathe
DVD: Biomechanics for Strong Bones
Alignment Snacks: Adductor Madness
Alignment Snacks: A Balanced Approach to Hip Strength
Alignment Snacks: All Around the Thighs We Go!
Alignment Snacks: All Fo’ the Pelvic Flo’
Alignment Snacks: Balance . . . with Lateral Hips
Alignment Snacks: Hips Don’t Lie - They Sit
Alignment Snacks: Leg Goes Forward; Leg Goes Back
Alignment Snacks: Frankie Says: Relax the Psoas
Institute Course: No More Kegels
Institute Course: Science of Psoas
Institute Course: Those Hard to Reach Area

Quiz

1. What is meant by exercise bulimia? What are the signs of it? How might one overcome it?

2. Evaluate golf, stand-up paddle boarding, or another activity utilizing the parameters (weight loss, bone density, muscle mass, joint health, cardiovascular health) found on page 290.

3. List some of the impairments to the musculoskeletal and cardiovascular systems that are caused or worsened by sitting.

4. List some of the functions of the pelvic floor musculature.

5. Which is “worse,” prolonged sitting or prolonged standing? Why? What is the alternative?

Supplemental Material


http://anp.sagepub.com/content/43/3/227.short

http://www.amazon.com/The-Chair-Rethinking-Culture-Design/
dp/0393319555/ref=sr_1_1?ie=UTF8&qid=1380139093&sr=8-1&keywords=the+chair+rethinking


http://bjsm.bmj.com/content/43/2/81.full

http://www.businessweek.com/magazine/content/10_19/b4177071221162.htm


http://topdocumentaryfilms.com/nanook-of-the-north/

http://www.restorativeexercise.com/ Download 1st two hours of course for free


http://www.imdb.com/title/tt0286244/


https://www.alignedandwell.com/shop/my-hands-hurt-from-elbows-to-fingers/


http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1310377/

http://www.karger.com/Article/FullText/111727


http://www.biomedcentral.com/1756-0500/2/161/


http://www.livealigned.ca/2012/07/23/internal-dialogue-or-dont-cultivate-boring-assholery/


http://newscenter.berkeley.edu/2012/12/17/malignant-breast-cells-grow-normally-when-compressed/

http://www.ted.com/talks/mina_bissell_experiments_that_point_to_a_new_understanding_of_cancer.html

http://jcb.rupress.org/content/128/6/1111.full.pdf


http://www.hopkinsmedicine.org/news/media/releases/osteoarthritis_progression_halted_in_mice


http://www.youtube.com/watch?v=UKzq1upN1gU&feature=youtu.be


http://alignmentmatrix.com/mechanome-going-beyond-genome/

http://www.fasciafreedomfighters.com/katy-bowman-interview/


Objectives

To understand that there is an operating muscle length necessary for optimal body function.
To understand that optimal joint function requires an optimal flexibility and stability; premature degeneration of a joint is the result of an imbalance that is exacerbated and accelerated with poor alignment and movement frequencies.

Vocabulary

flexibility
stability
valsalva
glycogen
triglycerides
diaphragm
peristalsis
compensation

For Physical Practice

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Institute Course: Science of Psoas
Institute Course: Those Hard to Reach Areas

Quiz

1. What bearing does muscle length have on optimal body function in general?

2. Explain the valsalva maneuver and when it might be used.

3. Describe what is happening when a joint develops osteoarthritis. What makes it better or worse?

Supplemental Material

Whole Body Alignment Course http://www.restorativeexercise.com/. Download 1st two hours of course for free


http://www.wholeliving.com/136269/detoxifying-stretches-boost-your-immunity/@center/179721/yoga#61793


http://www.footpainbook.com/


http://youtu.be/Eov7n2SRbr0


https://www.alignedandwell.com/shop/my-hands-hurt-from-elbows-to-fingers/


http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1310377/

http://www.karger.com/Article/FullText/111727


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http://www.livealigned.ca/2012/07/23/internal-dialogue-or-dont-cultivate-boring-assholery/

http://www.huffingtonpost.com/ann-brenoff/sitting-may-harm-health_b_1199952.html

http://www.katysays.com/tree-bones/


http://www.pnas.org/content/early/2011/11/15/1113050108


http://www.kathydettwyler.org/dettwyler.html

http://www.brianpalmerdds.com/bfeed_oralcavity.htm

Hunter-Gatherer Childhoods: Evolutionary, Developmental & Cultural Perspectives


http://www.katysays.com/katy-radio/

http://www.restorativeexercise.com/whole-body-alignment-course/


http://youtu.be/piWGFP89kE4
https://www.yogatuneup.com/self-massage-therapy-balls-programs

http://www.meltmethod.com/


http://youtu.be/904_CkMqkmo

http://youtu.be/x9biW4DUTrk


http://alignmentmatrix.com/mechanome-going-beyond-genome/

http://www.katysays.com/travel-notes/

Objectives

To better understand what it means “to have balance.”
To understand the impact the musculoskeletal system has on one’s proprioception.

Vocabulary

Vipassana meditation
proprioception
balance
objectivity
awareness

For Physical Practice

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Alignment Snacks: Frankie Says: Relax the Psoas
Institute Course: No More Kegels
Institute Course: Science of Psoas
Institute Course: Those Hard to Reach Areas
Balance Bootcamp: http://www.restorativeexercise.com/balance-bootcamp-aka-propiroception-is-this-thing-on/

Quiz

1. Look over the Quick Tests 1 and 2 starting on page 327. Which of the two do you find more challenging? Why?

2. What is the effect of tight muscles and stiff joints on the proprioceptive system?

Supplemental Material


https://www.coursera.org/


http://www.youtube.com/watch?v=UKzq1upNlgU&feature=youtu.be


http://www.katysays.com/travel-notes/

Objectives

To understand the importance of novel movements on musculoskeletal and neurological systems and how they relate.

Vocabulary

motor unit

For Physical Practice

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Alignment Snacks: Frankie Says: Relax the Psoas
Institute Course: No More Kegels
Institute Course: Science of Psoas
Institute Course: Those Hard to Reach Areas
Supplemental Material

http://www.enlightenednetworking.com/Audio%20Files/18-Nov_11-36.mp3


Objectives

To understand the relationship between sleep and body-repair time.
To understand how muscular contraction, both active and passive, affects circulation.
To understand the causes of osteoporosis, common locations where bone loss develops, and why and what is done to treat it.
To understand what puts affluent cultures at such great risk for osteoarthritis.

Vocabulary

homeostasis
fascia
myofascial release
sternum
rotator cuff
trapezius
Occam’s Razor
turbulent flow
anthropologist
lymphatic system
gastrocnemius
soleus
humerus
ischial tuberosity
metabolism
hypertonicity
quadratus lumborum
osteoporosis
mechanoreceptor
varus
valgus
semantics
For Physical Practice

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Institute Course: Science of Psoas
Institute Course: Those Hard to Reach Areas

Quiz

1. Why doesn’t “spot treating” our bodies work?

2. Evaluate several common movements or positions. What makes the movement active vs. passive?

3. What is the difference between a strain and a sprain?

4. What muscles make up the rotator cuff?

5. How are varicose veins created?
6. What does an individual’s sites of bone loss say about the way they move?

9. What is the role of exercise and nutrition in the treatment of osteoporosis?

10. Where are the most common areas of bone loss in osteoporosis?

Supplemental Material

http://www.corefoods.com/?q=research

http://www.youtube.com/watch?v=_FtSP-tkSug


http://www.fitnessmagazine.com/health/body/pain-relief/walk-this-way-4-ways-to-prevent-aches-pains/


http://doshaquiz.chopra.com/


https://arvigotherapy.com/

https://www.alignedandwell.com/shop/

http://www.restorativeexercise.com/  Download 1st two hours of course for free


http://www.youtube.com/watch?v=qcGPY4BMdIU&feature=youtu.be
http://www.youtube.com/watch?v=TtQ-hW0_3Og&feature=player_embedded!

http://spinningbabies.com/

http://www.softstarshoes.com/


http://youtu.be/7d9eCnBnfqU


http://aje.oxfordjournals.org/content/172/4/419.abstract


http://bjsm.bmj.com/content/43/2/81.extract


http://link.springer.com/article/10.1007%2Fs001920170090

http://youtu.be/hnCxQGceTQU


https://www.alignedandwell.com/shop/my-hands-hurt-from-elbows-to-fingers/

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http://www.karger.com/Article/FullText/111727


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http://www.livealigned.ca/2012/07/23/internal-dialogue-or-dont-cultivate-boring-assholery/


http://www.restorativeexercise.com/thes3me2/
