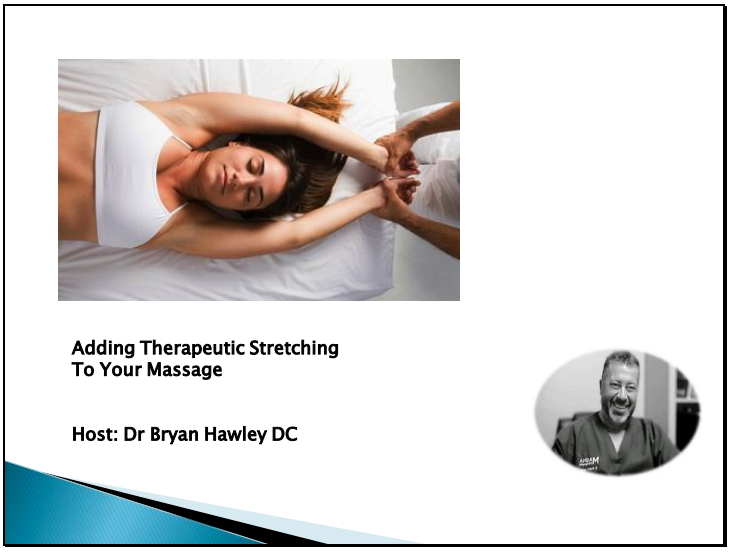
Slide 1


Adding Therapeutic Stretching
To Your Massage
Host: Dr Bryan Hawley DC

Slide 2

Really Creepy Fog
(John Carpenters movie "The Fog"

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Slide 3

Housekeeping

- Questions
- Who am I
- Notes
- Recordings
- Certificates/Tests
- info@drbryanhawley.com
- Lets begin

Slide 4

Stretching.
We all do it and usually it feels really, really great!

Slide 5

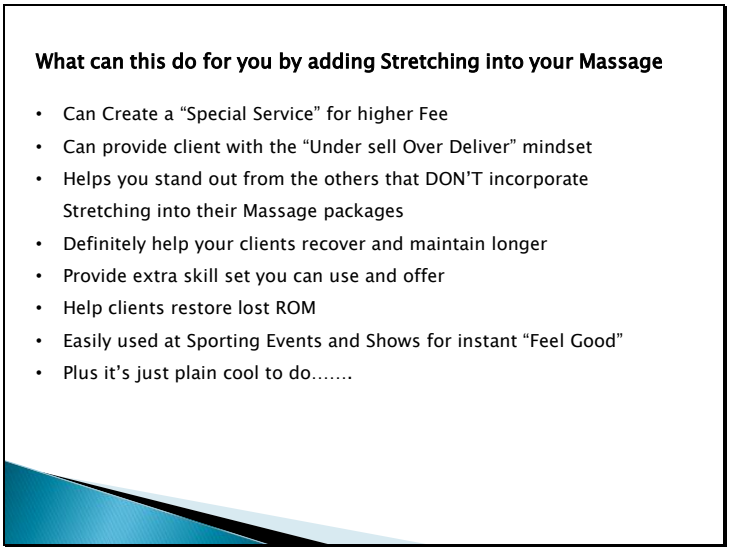
And we all love a good massage

http://www.rmtedu.com/blog/2015/12/27/pleasure-receptors

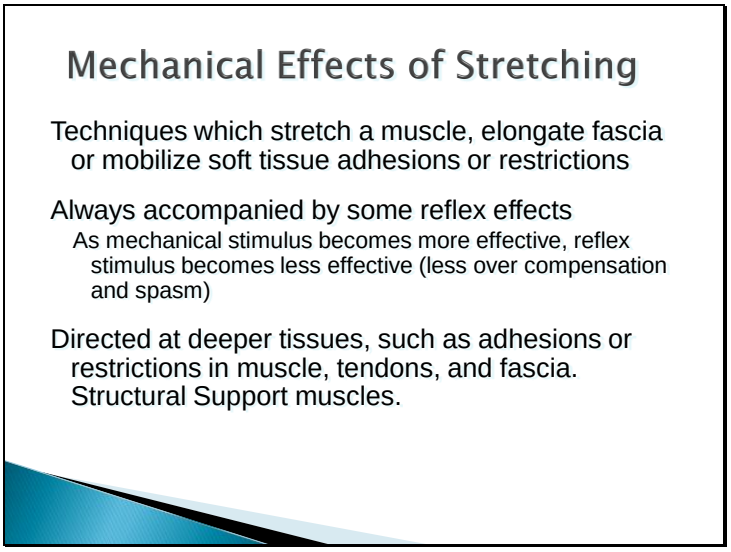
Slide 6

So why would we not want to incorporate it into our massages?

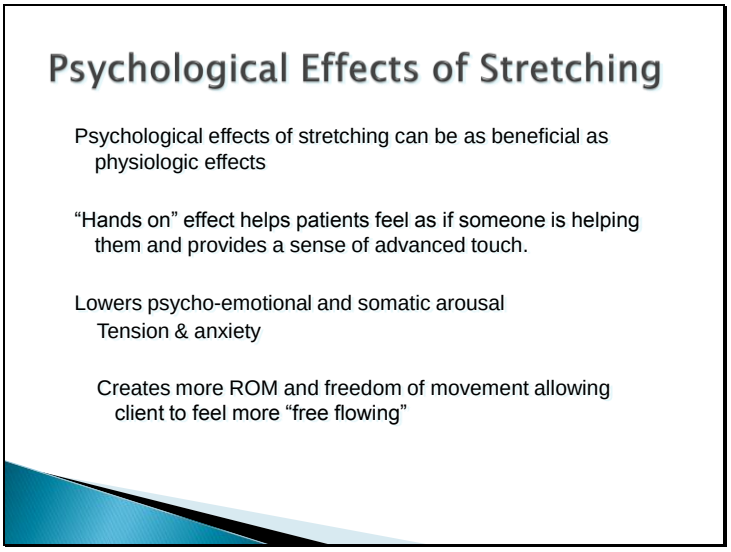
Slide 7


What can this do for you by adding Stretching into your Massage
• Can Create a "Special Service" for higher Fee
• Can provide client with the "Under sell Over Deliver" mindset
• Helps you stand out from the others that DON'T incorporate Stretching into their Massage packages
• Definitely help your clients recover and maintain longer
• Provide extra skill set you can use and offer
• Help clients restore lost ROM
• Easily used at Sporting Events and Shows for instant "Feel Good"
• Plus it's just plain cool to do…….

Slide 8

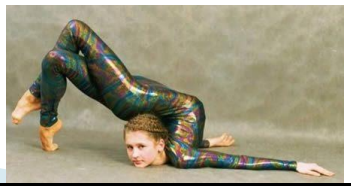

Mechanical Effects of Stretching
Techniques which stretch a muscle, elongate fascia or mobilize soft tissue adhesions or restrictions
Always accompanied by some reflex effects
As mechanical stimulus becomes more effective, reflex stimulus becomes less effective (less over compensation and spasm)
Directed at deeper tissues, such as adhesions or restrictions in muscle, tendons, and fascia. Structural Support muscles.

Slide 9


Psychological Effects of Stretching
Psychological effects of stretching can be as beneficial as physiologic effects
"Hands on" effect helps patients feel as if someone is helping them and provides a sense of advanced touch.
Lowers psycho-emotional and somatic arousal
Tension & anxiety
Creates more ROM and freedom of movement allowing client to feel more "free flowing"

Slide 10

1. Massage and Stretching should never be painful
2. Direction of forces should parallel muscle fibers
3. Begin and end with effleurage
4. Make sure patient is warm and in a comfortable, relaxed position
5. Body part may be elevated if necessary
6. Sufficient lubricant should be used
7. Begin with superficial stroking to spread lubricant and warm up tissue to be stretched

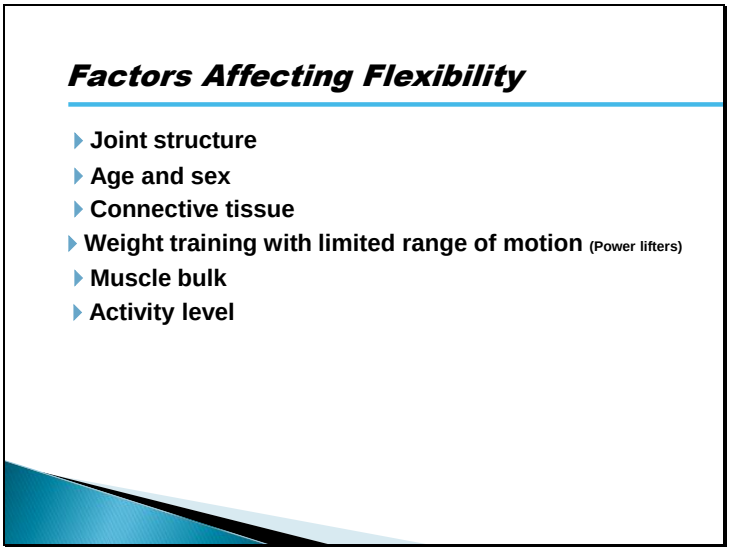


Slide 11

Positioning of Clinician

- Positioning will allow relaxation, prevent fatigue, and permit free movement of arms, hands, and body
- Weight evenly distributed and should shift from one foot to the other
- Hands should be warm

Slide 12

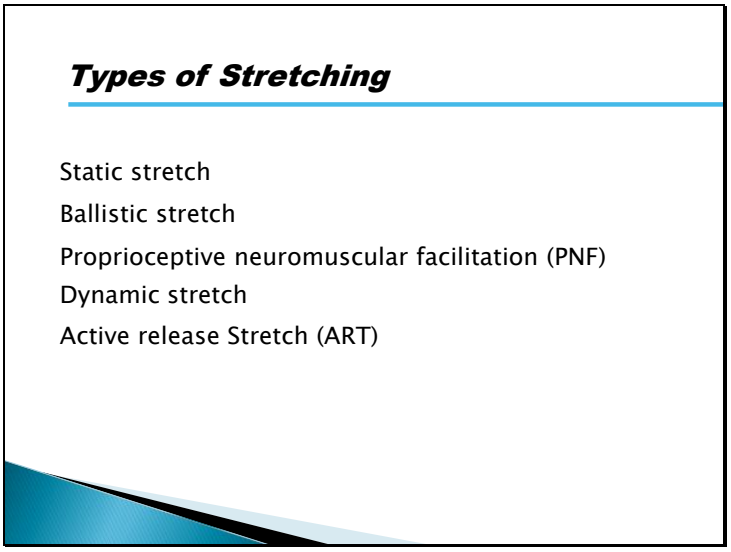

Factors Affecting Flexibility
Joint structure
Age and sex
Connective tissue
Weight training with limited range of motion (Power lifters)
Muscle bulk
Activity level

Slide 13

Frequency, Duration, and Intensity

- Each session should be preceded by 5 to 6 minutes of general warm-up prior to condition-specific stretching.
- Sessions should conclude with 4 to 5 minutes of Effleurage massage, or some general flushing
- For Super restrictive muscles, Individual stretches can be held to the point of mild discomfort, but not pain, for up to 30 seconds.

Slide 14


Types of Stretching
Static stretch
Ballistic stretch
Proprioceptive neuromuscular facilitation (PNF)
Dynamic stretch
Active release Stretch (ART)

Slide 15

- Static Stretch: A slow constant stretch with the end position held for up to 30 sec.
- Ballistic Stretch: Involves active muscular effort and uses a bouncing motion in which the position is not held.
- Dynamic Stretch: involves flexibility during sport-specific movements. Similar to ballistic in that it utilizes speed of movement, but avoids bouncing.
- PNF: Usually performed with a partner and involve both passive movement and active (concentric and isometric) muscle actions.
- PNF may be superior to other stretching methods because they facilitate muscular inhibition.

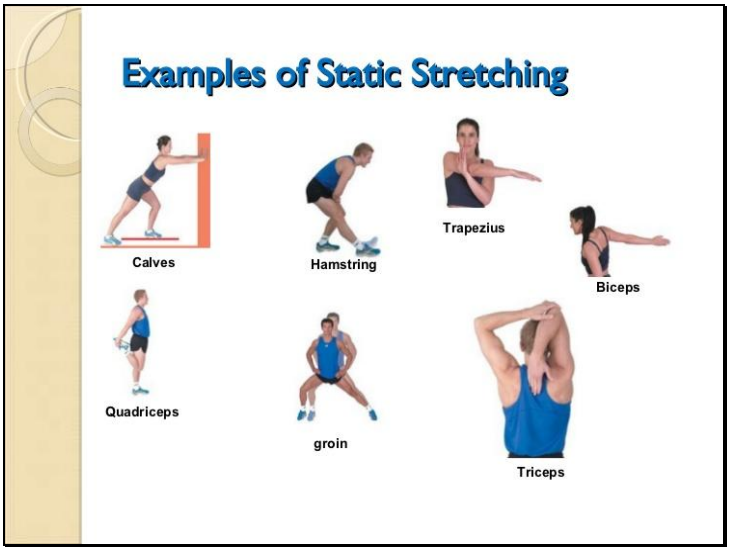
Slide 16

Static & Dynamic Flexibility

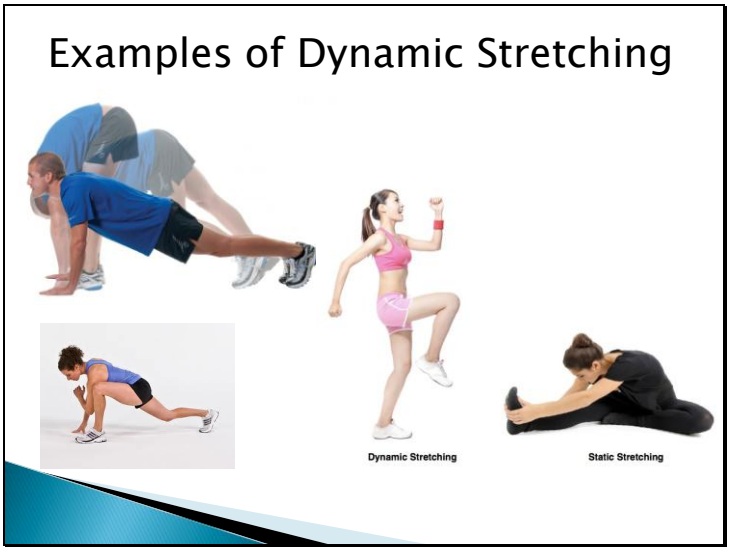
- Static Flexibility: Requires no voluntary muscular activity. An external force such as gravity or a partner provides the force to stretch. Another words the stretching of the muscle occurs while the body is at rest.

- Dynamic Flexibility: Requires voluntary muscular action.
- Static Flexibility provides GREATER ROM than dynamic flexibility. Very similar to **Functional movements**.

Slide 17


Examples of Static Stretching
Calves
Hamstring
Trapezius
Biceps
Quadriceps
groin
Triceps

Slide 18


Examples of Dynamic Stretching
Dynamic Stretching
Static Stretching

Slide 19

ROM

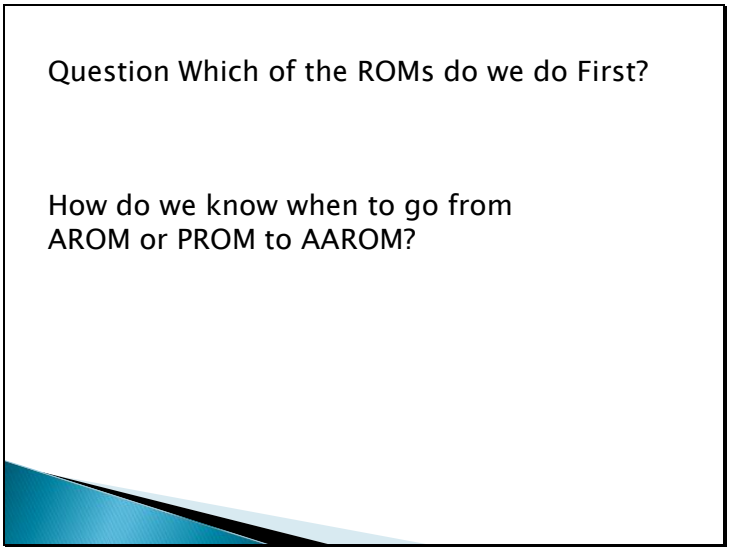
AROM **active range of motion** (or **AROM**) – Patient performs the exercise to move the joint without any assistance to the muscles surrounding the joint.

PROM **passive range of motion** (or **PROM**) – Therapist or equipment moves the joint through the range of motion with no effort from the patient.

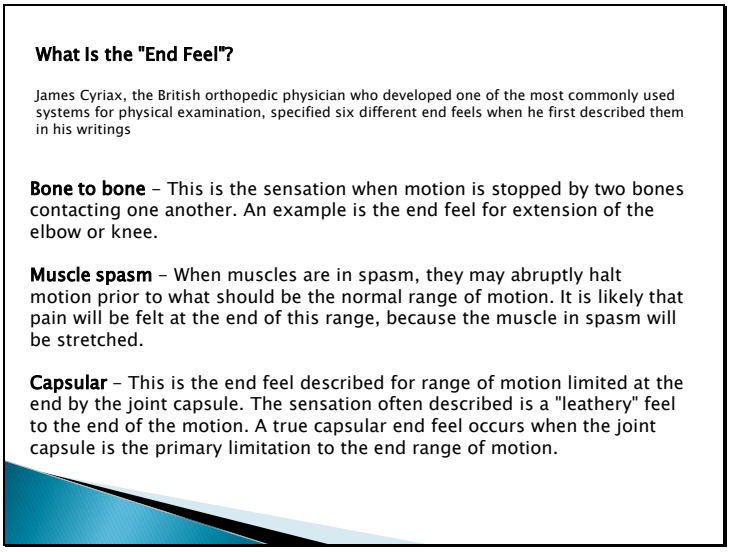
AROM Assist (or **AAROM**) – Patient uses the muscles surrounding the joint to perform the exercise but requires some help from the therapist or equipment (such as a strap).

AROM Resist when the patient actively resists the therapist while performing ROM.

Slide 20


Question Which of the ROMs do we do First?
How do we know when to go from AROM or PROM to AAROM?

Slide 21


What Is the "End Feel"?
James Cyriax, the British orthopedic physician who developed one of the most commonly used systems for physical examination, specified six different end feels when he first described them in his writings
Bone to bone – This is the sensation when motion is stopped by two bones contacting one another. An example is the end feel for extension of the elbow or knee.
Muscle spasm – When muscles are in spasm, they may abruptly halt motion prior to what should be the normal range of motion. It is likely that pain will be felt at the end of this range, because the muscle in spasm will be stretched.
Capsular – This is the end feel described for range of motion limited at the end by the joint capsule. The sensation often described is a "leathery" feel to the end of the motion. A true capsular end feel occurs when the joint capsule is the primary limitation to the end range of motion.

Slide 22

Springy block – This end feel is the sensation of motion stopping short of where it should, accompanied by a rubbery or springy sensation at the end. It occurs most often in joints in which a piece of loose cartilage (like the meniscus in the knee) may be blocking full motion and causing the limbs to "bounce back" a bit.

Tissue approximation – This is the end feel in which motion is stopped by two masses of soft tissue pressing on one another. An example is in flexion of the elbow, in which the elbow flexors and wrist flexors press on each other to limit further motion, or a hamstring curl.

Empty – This end feel has no mechanical limitation to the end of the range, but the client will not let you go any farther because of excessive pain. An example would be in shoulder impingement, in which **pain** from the supraspinatus tendon being compressed will limit how far the arm can be abducted. Mechanically there is no further restriction, but the pain will prevent the individual from allowing further motion.

Slide 23

Application of End Feel (why its important)

The end feel for a particular joint may be the joint's normal end feel, or it may be pathological in nature.

For example, in elbow extension, the normal end feel would be bone to bone as the olecranon process contacts the posterior aspect of the *olecranon fossa*. If you were performing a passive range-of-motion evaluation with your client and you got a tissue stretch end feel for the elbow in extension, it would most likely indicate some form of restricted range of motion that should be treated.

On the other hand, if you were evaluating medial rotation of the shoulder, you would expect a tissue stretch end feel, and that would be normal for medial rotation. If you performed medial rotation and got a bone- to-bone end feel, it would be abnormal for that joint and would certainly indicate a more serious joint pathology requiring evaluation by another health professional.

Slide 24

Joint Mechanoreceptors

Found in ligaments, capsules, menisci, labra, and fat pads
- Ruffini's endings
- Pacinian corpuscles
- Free nerve endings

•Sensitive to changes in shape of structure, pressure and rate/direction of movement

•Most active at end of ranges of motion

Muscle Mechanoreceptors

Muscle spindles – sensitive to changes in length of muscle

Golgi tendon organs – sensitive to changes in tissue tension

Slide 25

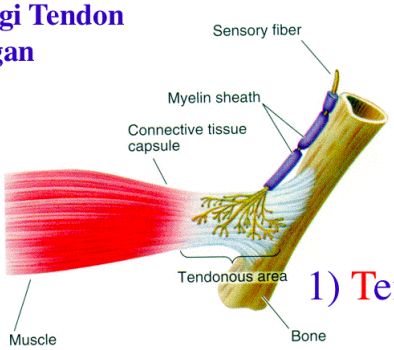
Proprioceptors and Stretching

- **Stretch Reflex**: During a rapid stretching movement the ia (intra articular) fibers from the muscle spindle cause increased activation of the muscle that was stretched and its synergist. This causes the muscle to shorten. THIS SHOULD BE AVOIDED
- Careful static stretching does not invoke the stretch reflex
- **Mechanoreceptor:** GTO is sensitive to muscle tension. When stimulated it causes the muscle to relax.

Slide 26

The Golgi tendon reflex operates as a protective feedback mechanism to control the tension of an active muscle by causing relaxation before the tendon tension becomes high enough to cause damage. **Fast vs Slow Stretching**

Golgi Tendon Organ



1) Tension

Slide 27

Isometrics are a type of non-movement in which the joint angle and muscle length do not change during contraction

- Performed in early part of rehab following period of immobilization
- Used when resistance through full range could make injury worse
- Increase static strength, work to decrease/limit atrophy, create a muscle pump to decrease swelling
- Strength gains are limited primarily to angle at which joint is exercised, no functional force or eccentric work developed
- Difficult to motivate and measure force being applied

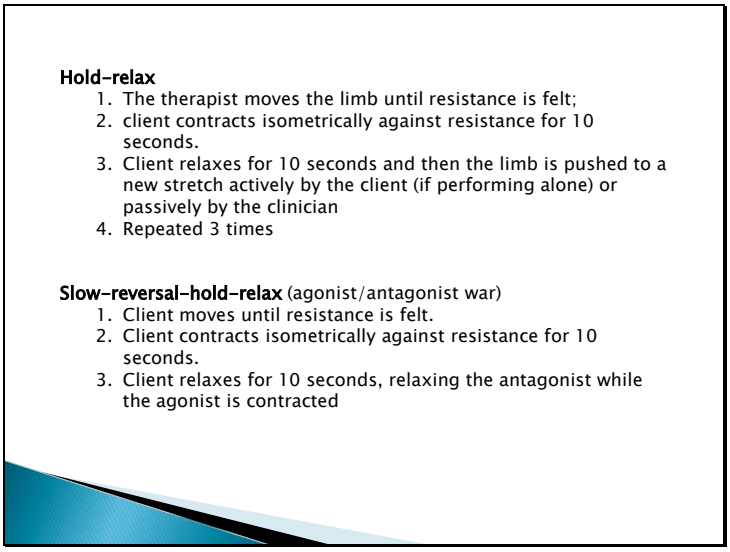
Slide 28

Proprioceptive Neuromuscular Facilitation

PNF stretching, or proprioceptive neuromuscular facilitation stretching, is a set of stretching techniques commonly used in clinical environments to enhance both active and passive range of motion in order to improve motor performance and aid rehabilitation.

Various forms of PNF

Slide 29


Hold-relax
1. The therapist moves the limb until resistance is felt;
2. client contracts isometrically against resistance for 10 seconds.
3. Client relaxes for 10 seconds and then the limb is pushed to a new stretch actively by the client (if performing alone) or passively by the clinician
4. Repeated 3 times
Slow-reversal-hold-relax (agonist/antagonist war)
1. Client moves until resistance is felt.
2. Client contracts isometrically against resistance for 10 seconds.
3. Client relaxes for 10 seconds, relaxing the antagonist while the agonist is contracted

Slide 30

Begin with a passive pre-stretch 10 sec

Hold-Relax PNF

Therapist applies force & client holds to 'resist' the movement 6 sec

client relaxes and a passive stretch is held for 30 sec

The final stretch should be of greater magnitude due to autogenic inhibition

Slide 31

Begin with a passive pre-stretch 10 sec

Contract-Relax PNF

client does a concentric contraction thru a full ROM against resistance

client relaxes and a passive stretch is held for 30 sec

The final stretch should be of greater magnitude due to autogenic inhibition

Slide 32

Begin with a passive pre-stretch 10 sec

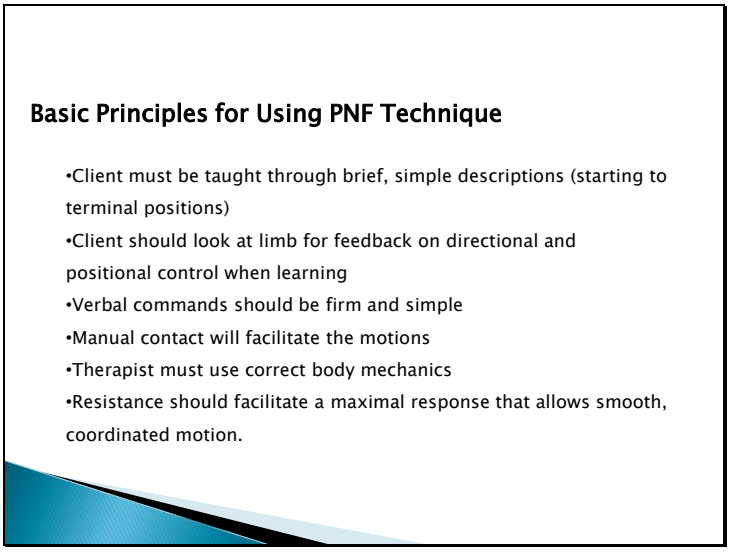
Hold-Relax with Agonist Contraction PNF

Partner applies force & client holds to 'resist' the movement 6 sec

Client contracts the agonist (quads) to provide additional stretching force and a passive stretch is held for 30 sec

The hold-relax with agonist contraction PNF technique is the most effective due to facilitation via both reciprocal inhibition and autogenic inhibition

Slide 33


Basic Principles for Using PNF Technique
•Client must be taught through brief, simple descriptions (starting to terminal positions)
•Client should look at limb for feedback on directional and positional control when learning
•Verbal commands should be firm and simple
•Manual contact will facilitate the motions
•Therapist must use correct body mechanics
•Resistance should facilitate a maximal response that allows smooth, coordinated motion.

Slide 34

Positional Release Therapy

PRT is based on the strain/counterstrain technique
Difference is the use of a facilitating force (compression) to enhance the effect of positioning.

Osteopathic mobilization technique

You should contact the painful area (broad contact) and while holding pressure move the limb or head into a position slowly while monitoring pain. If the pain is decreasing you are going in the right direction. Once the pain gets to a 2 or 3/10 then stop and hold that position with pressure for at least 1 minute. Slowly return back to resting state all the while monitoring the VAS scale. You may have to repeat a few times.

Slide 35

Positional Release Therapy

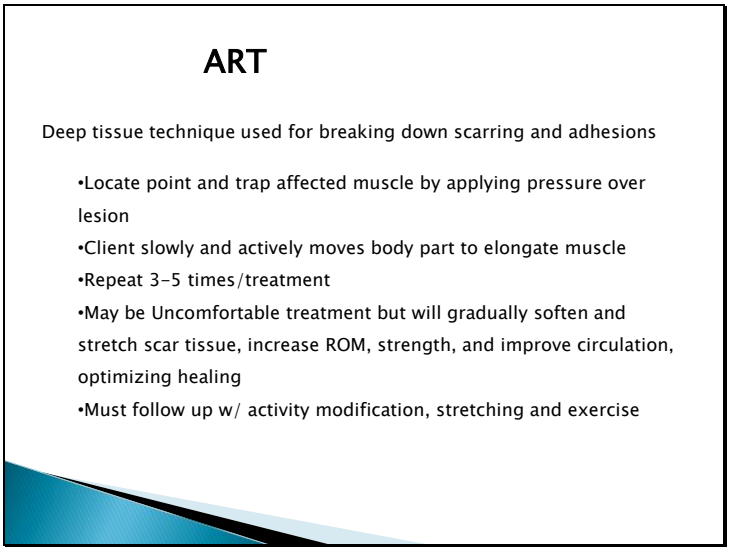
Slide 36

Active Release Therapy

ART is relatively newer type of therapy used to correct soft tissue problems caused by formation of fibrotic adhesions

- Result of acute injury and repetitive overuse injuries or constant pressure/tension
- Disrupt normal muscle function affecting biomechanics of joint complex leading to pain and dysfunction
- Way to diagnose and treat underlying causes

Slide 37


ART
Deep tissue technique used for breaking down scarring and adhesions
•Locate point and trap affected muscle by applying pressure over lesion
•Client slowly and actively moves body part to elongate muscle
•Repeat 3-5 times/treatment
•May be Uncomfortable treatment but will gradually soften and stretch scar tissue, increase ROM, strength, and improve circulation, optimizing healing
•Must follow up w/ activity modification, stretching and exercise

Slide 38

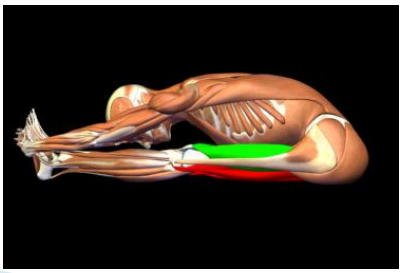
Slide 39

- Autogenic Inhibition: Relaxation in the same muscle that is experiencing increased tension. Autogenic inhibition is accomplished by actively contracting a muscle immediately before a passive stretch of the same muscle.
  - Tension built up during the active isotonic contraction stimulates the GTO, causing a reflexive relaxation of the muscle during the subsequent passive stretch. Must move into stretch SLOWLY or will re activate the GTOs

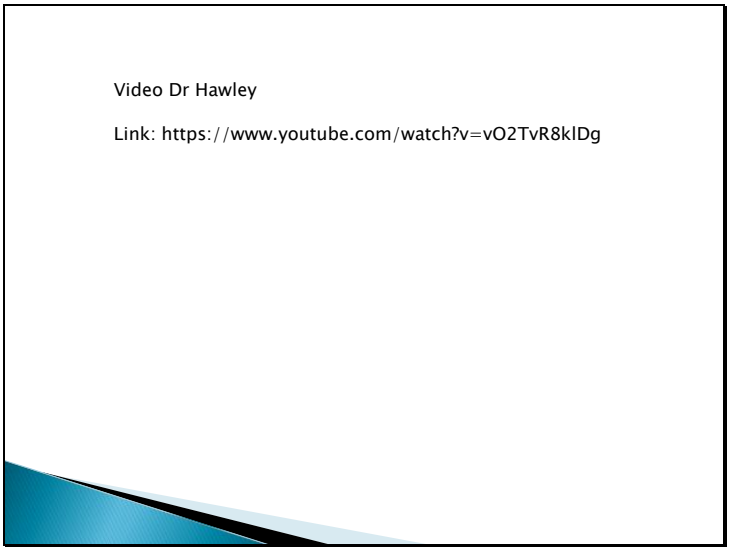
Slide 40

- Reciprocal Inhibition: Relaxation that occurs in the opposing muscle experiencing increased tension.

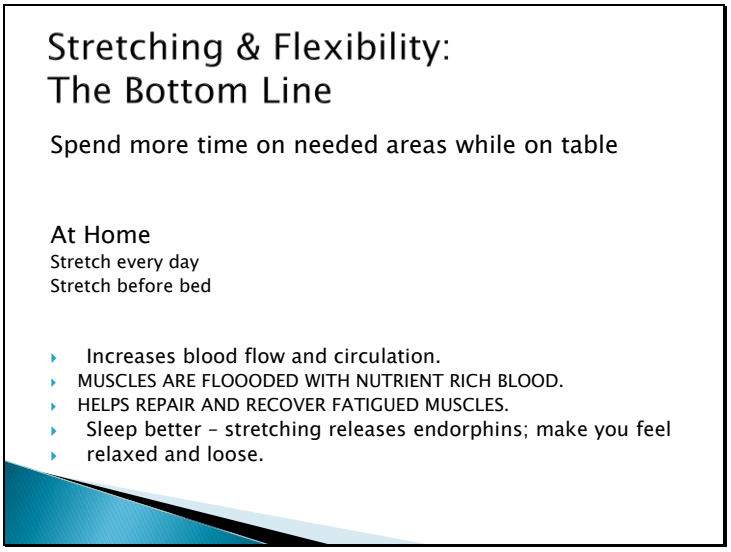
When an agonist contracts, in order to cause the desired motion, it usually forces the antagonists to relax (see section Cooperating Muscle Groups). This phenomenon is called *reciprocal inhibition* because the antagonists are inhibited from contracting.



Slide 41


Video Dr Hawley
Link: https://www.youtube.com/watch?v=vO2TvR8klDg

Slide 42


Stretching & Flexibility:
The Bottom Line
Spend more time on needed areas while on table
At Home
Stretch every day
Stretch before bed
Increases blood flow and circulation.
MUSCLES ARE FLOOODED WITH NUTRIENT RICH BLOOD.
HELPS REPAIR AND RECOVER FATIGUED MUSCLES.
Sleep better – stretching releases endorphins; make you feel relaxed and loose.

Slide 43


Private Webinar Meeting
Online Course for Target Marketing for FB
Next Webinar:
Reflexology
Future Topics
•Energy work Reiki
•Business
•Self Care

Slide 44

Housekeeping

- Questions
- Notes
- Recordings
- Certificates/Tests
- info@drbryanhawley.com
- Lets begin