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I'd 14697 DPT 4th

Course: therapeutic exercise

Introducer :: Dr Muhammad jafar

# Question no 1

# Answer

# Flexibility

# Definition

The quality of bending easily without breaking

The ability to be easily modified

Willingness or compromise

# Mobility

## Definition

The ability to move or be moved freely and easily

The ability to move between different levels in society or employment

# Indications and contraindications of stretching

Joint instability to stretching can be the result of a prior dislocation fracture or sprain.

Disease affecting the tissues being stretched.

Acute injury

Vascular

Infection

Excessive pain when stretching

Inflammation or joint effusion .

# Isometric contraction

## Definition

A third type of muscle contraction isometric contraction is one in which the muscle is activated but instead of being allowed to lengthen it shorten it is held at a constant length.

## Example

Carrying an object in front of you .

# Isotonic

Definition

In isotonic contraction tension remind the same whilst the muscle length changes isotonic concentration in that in isokinetic contraction the muscle speed remain same.

# Question no 2

What is Aerobic exercise? Write down principles of aerobic exercise

# Answer no 2

## Aerobic exercise

Performed at a level of intensity that is too high

Aerobic exercise not only improvise fitness it also has known benefit for both physical and emotional health.

Aerobic exercise can help prevent or reduce the chance of developing some cancer. Diabetes depression cardiovascular disease and osteoporosis

# Principles of aerobic exercise

# Intensity

1. Duration
2. Frequency
3. Modes

# Intensity

* How hard your body is working
* Moderate intensity aerobic
* Vigorous intensity aerobic

# Duration

* How long the performance is
* 20-30 minuets is optimal
* The greater intensity of exercise the shorter duration needed to adapt

# Frequency

* How often the exercise should be
* 3-4 times a week depends on goals .

# Modes

* Selecting type of aerobic exercise
* Depends on goal physical condition injury history
* For example heigh load few condition repetitions = muscle strength
* Light load many repetitions = muscle endurance

# Question no 3

Define stretching?types of stretching

# Answer

# Stretching

# Definition

Stretching general term used to describe any therapeutic manoeuvre designed to increase the extensilbilty of soft tissue. There number improving flexibility by elongating structure that have adapttively shortened and have become hypo mobile over time.

# Types of stretching

## Active

Self stretching

## Passive

Partner provides force of stretch

# Static

* Slow sustained stretched held for 10-30 sec
* Preferred in physical education settings

# PFN

* Combo active passive technique
* Not for children 6-10 years

# Ballistic dynamic

* Quick movement. Bouncing use momentum
* Reverse for those 15+ years

# Question no 4

**Define contracture ? Discus types of contracture**

# Contracture

A contracture is a fixed tightening of muscle tendons ligaments or skin it prevents normal movement of the associated body part .AN injury such as a service burn can cause contracture of the skin .The skin become scarred and nonelastic which limits the range of movement of the affected area .

## Types of contracture

# Myostatic contracture

* No p
* Specific muscle pathology
* A reduction in the number of sacromere units in series
* There is no decreases in individual sacromere length
* Resolved in a relatively short time with stretching

# Pseudomyostatic contracture

Muscle in a constant state of contraction

Hypertonicity associated with a CNS lesion such as a CVA a spinal cord injury.

Muscle spasm and pain

Can be resolved with stretching.

# Arthrogenic contracture

An anthropogenic contracture is intra articular pathology

These changes may include

**Adhesion b**and of scar like tissue adhesions cause tissue and organs to stick together.

***Synovial proliferation***

Joint effusion

Irregularities in articular cartilage osteophyte formation .

Restricted arthrokinematics

# Fibrotic contracture

It may occur when normal muscle tissue and connective tissue are replaced with a large amount of inextensible fibrotic adhesions and scar tissue or even heterotopic bone

Permanent loss of extensibility of soft tissue occur that cannot be reversed by nonsurgical intervention.

Healed by stretching and surgical intervention.

# Causes

* Brain and nervous system disorder such as cerebral palsy or stroke
* Inherited disorder muscular dystrophy
* Nerve damage
* Reduced use for lack of mobility
* Sever muscle and bone injures
* Scaring after traumatic injury or burns .

# Home care

* Doing exercise and stretches
* Using braces and splints.

# Question no 5

What is nagi model? Discuss disablement and impairment?

# Nagi model

## Definition

Nagi used the term pathology. Pathology impairment functional limitation and disability to describe health status .These term can be used to categorize clinical observations systematically.

A conceptual explanations of the process and underlying mechanisms by which disease injury or birth defects impacts a person ability to function.

# Hypothesis

Disease ..... cause .. impairment

Impatient....Causes...function limitations

Function limitations.... cause...disability

# Primary pathology

Pathophysiology due to disease injury or congenital abnormality

# Primary impairment

Result if primary pathology

# Sings and symptoms

In stroke hemiplegia

Loss of selectively movement control

Sensory loss

A phased

# Secondary impairment

Due to lack of treatment of primary impairments

Contracture. Disuse atrophy

Usually what PTs treat .

# Functional limitations

* Basic ADLs
* Self care
* Dressing grooming
* Hygiene
* Toileting bad transfer locomotion
* P
* Speech
* Reading

## Instrumental

* Higher order skills requiring more psychological processing in addition to motoric functioning
* Shopping
* Playing
* Bills
* Meal
* Preparation
* Going to the moves

# Disability

Social and physical consequences of functional limitations expected social roles may be heavily influenced by external factors like support system or funding.

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