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Programme : Master of Physical Education

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Unit -V

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FLEXIBILITY EXERCISE

UNIT-5

Flexibility Exercise

UNIT 5

Flexibility Exercise Flexibility Training, Relaxation Techniques and Core Training. Safety techniques (stretching protocol; breathing and relaxation techniques) types of flexibility exercises (i.e. dynamic, static), Develop basic competency in relaxation and breathing techniques. Pilates, Yoga.

FLEXIBILITY TRAINING

Flexibility training aims to increase a joints range of motion (ROM). There is a difference between active and passive ROM, with active being the ROM produced by the athlete by contracting their muscles (straight leg lift) while passive ROM is the range produced using an external force (sit and reach). It is active ROM that affects performance, though passive ROM stretches can be used to increase active ROM. Flexibility training affects performance by allowing the athlete to use correct technique in skill execution and preventing injury.

RELAXATION TECHNIQUE AND CORE TRAINING

Deep breathing Breathe slowly and regularly, with your stomach moving more than your chest. You can try placing one hand on your chest and the other on your stomach to help you control your breathing.

Progressive muscle relaxation Tense and then release different muscles in your body

Tai chi A gentle exercise that involves slow, relaxed movements, careful postures, and focused breathing.

CORE TRAINING

Core training is a type of exercise that strengthens and stabilizes the muscles in your core, which includes your back, hips, pelvis, and abdominals.

Core training can help improve your posture and balance, relieve back pain, and prevent injuries

SOME BENEFITS OF CORE TRAINING

Improved posture and balance: Core training can help you stand taller and improve your alignment.

Reduced back pain: Core training strengthens the muscles that support your spine, which can help prevent injuries

Improved functional movement: Core training can help you improve your movement patterns, such as squatting, bending over, and picking things up off the floor.

CORE TRAINING

Plank

Crunch

Modified plank

Dead bug

Bicycle crunch

Plank crunch

Rotational exercises

Side Plank

High plank

Modified side plank

Elbow to knee

V-sit

Pall of press

Superman

Oblique crunch

Plank hip dips

Leg circles

Plank walkout

Dragon flags

Standing cable wood chop

Plank hip dips

Leg circles

Plank walkout

Dragon flags

SAFETY TECHNIQUES

Warm up: Stretching cold muscles can increase the risk of injury. Try stretching during your cool down.

Breathe normally: Deep breathing can help relax muscles while stretching.

Move slowly: Avoid jerky or bouncy movements, which can cause muscle tightness and injury.

Don't hold your breath: Deep breathing can help relax muscles while stretching. Stretch to tension, not pain: Stretching shouldn't hurt.

The background is a solid teal color. In the four corners, there are decorative white line-art patterns resembling circuit boards or neural networks, with lines connecting to small circles.

Stretch to tension, not pain: Stretching shouldn't hurt.

Don't lock joints: Keep joints slightly bent, as locking them straight can cause injury.

Stop if it hurts: Sharp or stabbing pain or joint pain means you're stretching too far and should stop.

STRETCHING PROTOCOL

Do 2-4 sets of 30-second static holds per muscle group, 5 days per week.

Note: Meeting the goal of 5 minutes per muscle group per week can also be achieved by holding each stretch longer (e.g., 60 seconds instead of 30 seconds).

BREATHING AND RELAXATION TECHNIQUES

Deep breathing : Breathe in through your nose and out through your mouth, allowing your breath to flow into your belly. You can try counting from 1 to 5 while breathing in and out.

4-4-4 breathing : Breathe in for a count of four, hold your breath for a count of four, breathe out for a count of four, and hold your breath again for a count of four. Repeat this pattern.

5-5-5 breathing : Breathe in for a count of five and out for a count of five. Imagine you're inflating a balloon in your stomach.

Box breathing : Breathe in for a count of four, hold your breath for a count of four, breathe out for a count of four, and hold your breath again for a count of four. Repeat this pattern four times.

Rectangle breathing : Focus on a rectangular shape, like a window or book, and breathe in for the short side and out for the long side. You can try breathing in for four seconds and out for six seconds

The background is a teal-to-blue gradient. In the corners, there are decorative white circuit-like lines with small circles at the ends, resembling a stylized PCB or neural network.

Relaxation techniques can help improve your health in many ways, including :

Lowering blood pressure

Slowing your heart rate

Improving your mood

Improving your sleep quality

Reducing muscle tension

Easing chronic pain

TYPES OF FLEXIBILITY EXERCISE

types of flexibility exercises, including static, dynamic, active, and PNF stretching:

Static stretching :

Involves holding a position for a period of time, usually 20–45 seconds. Static stretches can help with muscle relaxation and flexibility, and can help offset fatigue and muscle soreness.

Examples include calf stretches, toe touches, and standing hamstring and quad stretches.

Dynamic stretching :

Involves controlled movements that prepare muscles, ligaments, and other soft tissues for performance and safety. Dynamic stretching can improve circulation, enhance performance, and reduce the risk of injury.

Active stretching :

Also known as static active stretching, this type of stretching uses your own muscles to provide resistance.

PNF stretching :

An advanced form of stretching that combines static and dynamic stretching. Studies have shown PNF stretching to be better than traditional passive

DEVELOP BASIC COMPETENCY IN RELAXATION AND BREATHING TECHNIQUES

Deep breathing

Sit comfortably and breathe in through your nose, allowing your stomach to rise. As you exhale through your mouth, contract your abdominal muscles and push out as much air as you can. You can try counting slowly as you exhale.

Lion's breath

Also known as simha sana, this breathing exercise involves sticking out your tongue and roaring like a lion. It can help relax your face and jaw muscles, relieve stress, and improve cardiovascular function.

Pursed lip breathing

This simple breathing technique can help with relaxation and may even relieve symptoms of chronic respiratory conditions.

Progressive muscle

Relaxation This technique involves tensing and relaxing individual muscle groups, starting with your toes and working your way up to your head and neck. You can practice with a therapist or recording.

PILATES , YOGA

Best For Relaxation.

For most people, yoga would win this category hands-down. And it is true that there is a more obvious focus on relaxation in yoga; deep breathing, purposeful movement and the spiritual element make it an intrinsic part of this movement form.