E-Content for Skill Enhancement Course
For
Semester - I (Under Gradute) DDU Gorakhpur University

SE 1PED – Physical Fitness and Recreation

Unit - 1

Introduction to Body Conditioning

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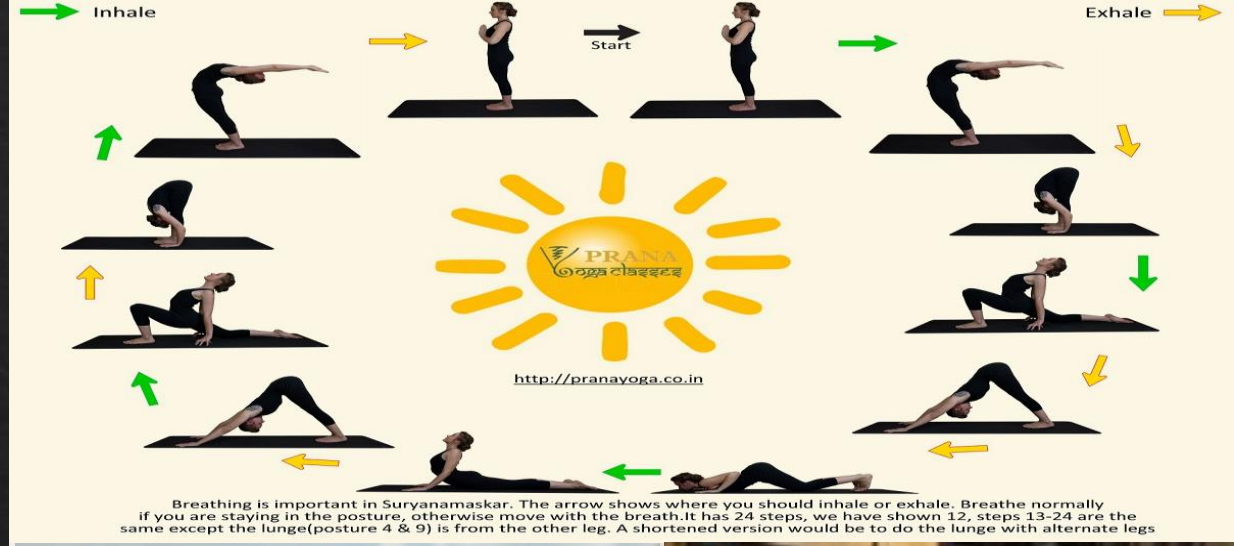
Concept of Body Conditioning and Fitness

- Body conditioning is a form or set of exercises that targets the whole body to be prepared for desired physical activities.

- It focuses on developing various physical components such as strength, speed, muscular endurance, cardiovascular fitness, and flexibility.

- Body conditioning can involve almost any form of exercises; therefore, it is important for everybody to plan, formulate and design a specific and balanced exercise routine that fulfills an individual or a group's overall goal.



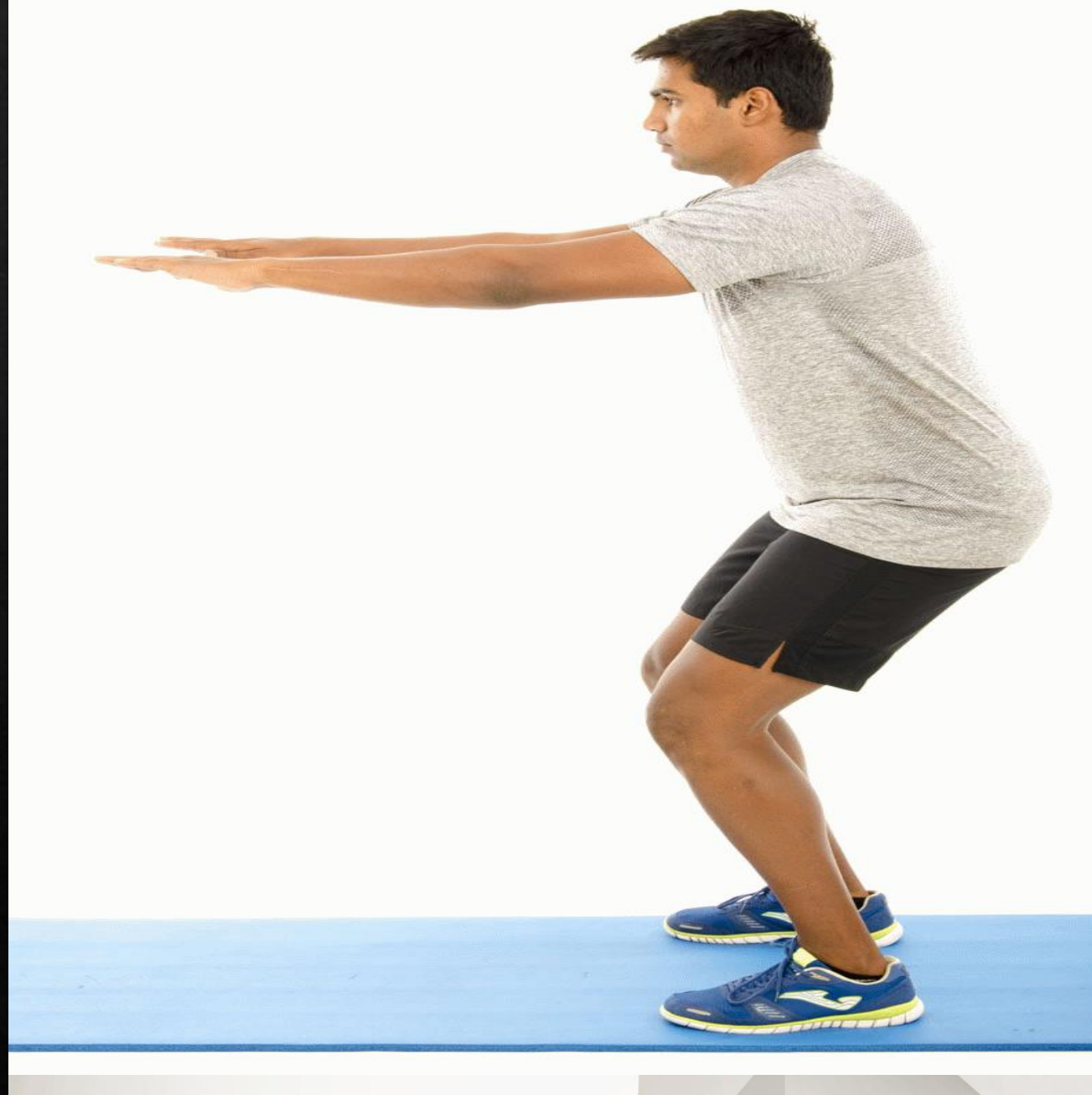
The four important factors to be considered in case of body conditioning are as follows:

Cardiovascular Fitness: The fitness level of Heart (Cardiac muscles) is very crucial for overall physical fitness, therefore, total body conditioning must be included cardiovascular training regime.

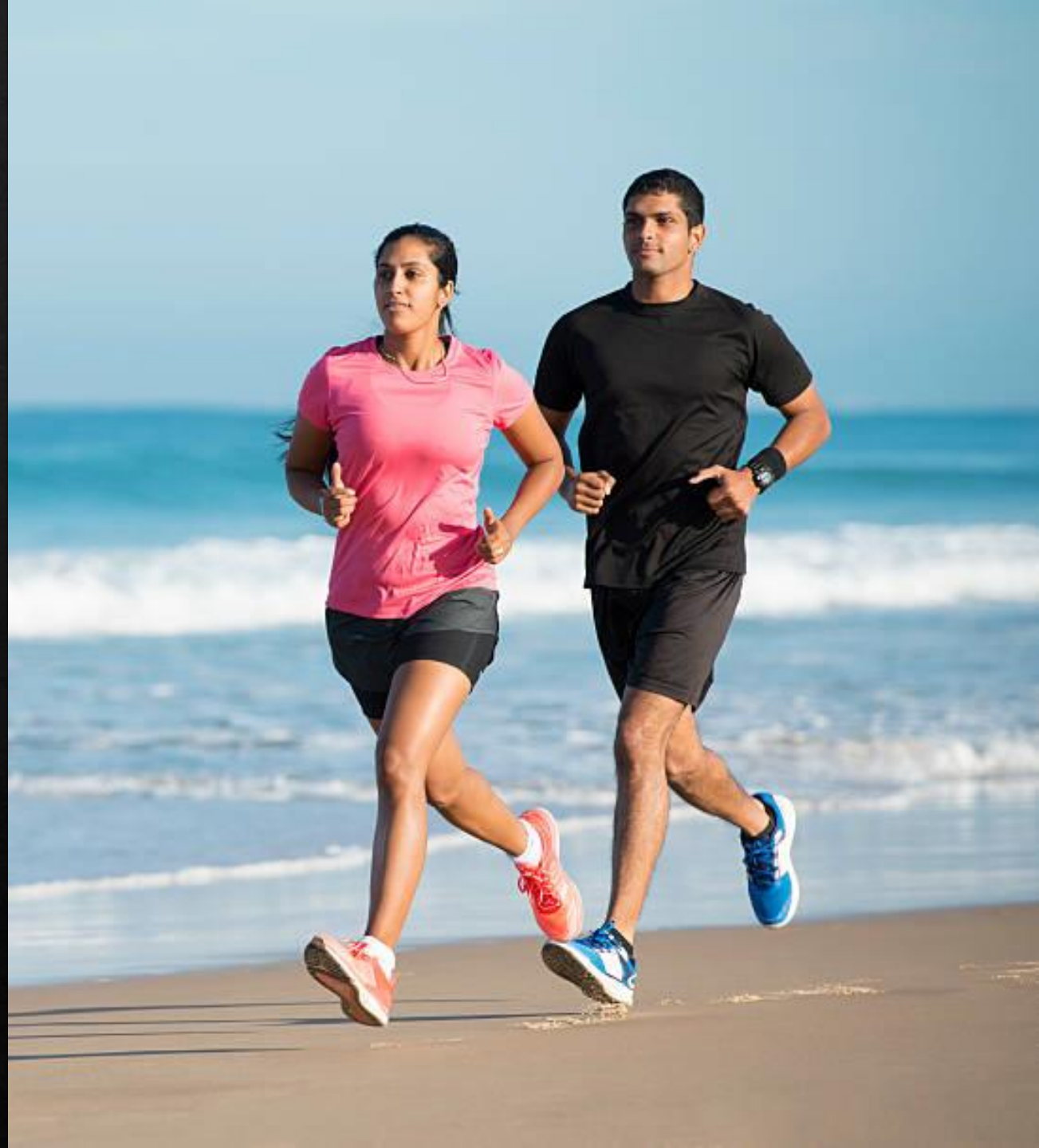
Muscular Strength: The maximal amount of force a muscle or muscle group can exert during a muscular contraction. Voluntary muscles functions play a crucial role in muscular strength fitness standards, such as in powerlifting events.

Muscular Endurance: The ability of a muscle or a group of muscles to exert force against a resistance over a given period of time, such as long distance cycling or running or swimming.

Flexibility/Mobility: The ability of a joint to move through its full range of motion (ROM) is called flexibility. Better mobility is important for well coordinated body movement, prevention of injuries and efficient use of strength.



- Before the start of a body conditioning regime, one must remember that due to the presence of individual differences, each body has different demands, capacities and abilities, so it is essential to remember that *there is no set blueprint for conditioning the body for everyone.*
- For successful Body Conditioning, one must decide which **one or more factors among the four factors** they need more attention to improve upon. At the same time it is better to involve all four factors in schedule with appropriate proportion, to get better result out of training/conditioning schedule.
- This is why **cross training** (or using multiple modes of exercise) is imperative. Additionally, it is absolutely essential one remembers *there is no set blueprint* for body conditioning.
- The same cardiovascular or strength workout will not yield the same results for every individual. This is why it is important to critically evaluate exercise programs to determine if the workout pace, mode, and intensity are right for you and your goals.



TERMS

- To get the best out of your body conditioning program, it is important to understand some of the following key terms:

- **Sets:** Consist of several repetitions completed consecutively.
- **Reps:** The number of times you do a movement in a set.

- **Example:** Completing 3 sets of 8 reps or (3×8) of the bicep curls would consist of consecutively lifting the dumbbell 8 times (reps) to complete a set; rest would follow the set. The sequence would be followed two more times, completing the prescribed 3 sets of 8 reps or (3×8) of the bicep curls.

- **Frequency:** the number of times exercises is performed in a distinct time period. This could be per day, per week, per month or per years.

- **Intensity:** the amount of work required during an exercise and the rate at which energy is used. Several factors go into intensity including the weight being lifted, the number of sets and reps performed, and the time in between sets. Anything to make an exercise more or less challenging is a matter of changing intensity.

Warm-Up

- The purpose of a warm-up is to prepare the body for the more intense/demanding movements to be followed. It should slow and gradual to increase the heart rate thereby increasing blood flow to the working muscles.
- The Warmup activities are responsible to provides the oxygen and nutrients necessary to muscles with the for contraction. Proper warm up activities before exercising can greatly reduce the risk of injury.
- A good Warmup needs planning as per the requirement of main activity. A warm up should be movement specific. If your plan involves working the lower body, the warm up should work the total body but significantly more time should be dedicated to dynamically stretching and working the lower body.
- If the exercise session involves more work of the upper body, it is important to warm up specifically and dynamically stretch the shoulders, upper back, neck, chest, lower back, obliques and torso.

COOL- DOWN /LIMBERING DOWN

- The cool-down exercises performed after the main activity should be used for static stretching or PNF to return the muscles trained to their original resting length/position.

- During sports or main work outs or fitness schedule the muscles are in constant contraction and relaxation phase, for example, constant shortening of muscles in order to lift a weight.. We want to return the muscle to its resting length so it remains flexible which will reduce risk of injury.
- A cool-down will also help prevent or reduce muscle soreness.

Stretching

- **Static:** Holding a stable / stationary pose for 10-15 seconds at a time.
- **Ballistic:** Passive stretch that has an added bouncing component. An example would be holding a hamstring stretch while rocking to try and touch your toes or *Katichakrasana* of Yoga.
- **PNF (Proprioceptive Neuromuscular facilitation):**

PNF is an advanced version of static stretching. PNF involves contracting the muscle that need to be stretched for 6-10 seconds and the relaxing to perform a static stretch for 15-20 seconds. This leads to the improvement of ROM (Range of Motion).

HOW TO DO BODY CONDITIONING EXERCISES?

- Body conditioning exercises aims to activate the whole body, it involves the use of various and different muscles to strengthen, mobilise, shape, and tone the body. They may used as combination or specific or in an individual way of exercises, such as flexibility, strength, circuit training and resistance training.
- Body conditioning improves endurance, increases flexibility, mobility and establishes a balanced, stable body physique.
- The valuable warmup exercises offer a variety of positive benefits to improve overall health and fitness level of an individual. The regular participation in these activities builds and enhance the power, coordination, and speed. This allows one to improve his/her athletic performance and also lead to betterment of daily routine schedule.

Exercises:

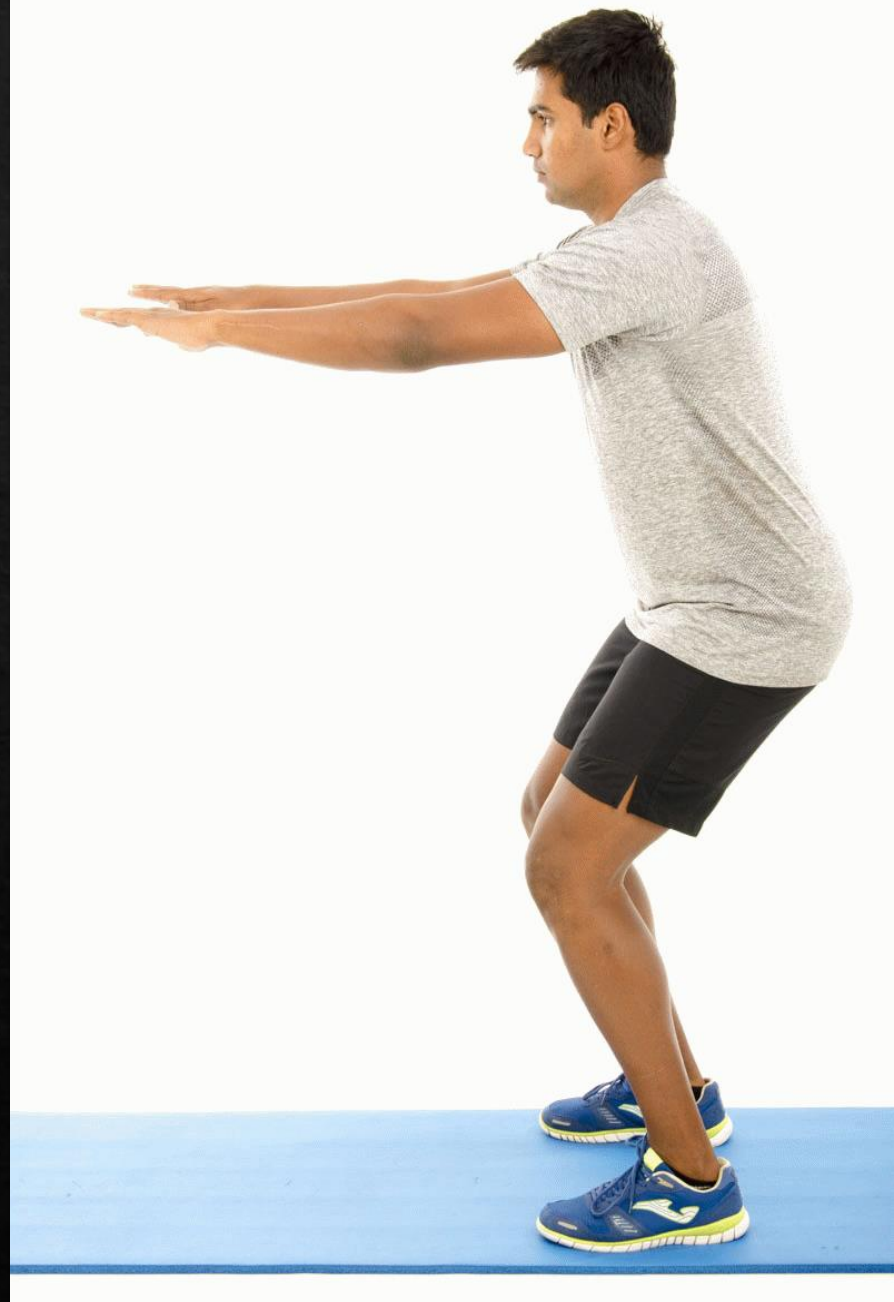
- Get your blood flowing, heart pumping, and muscles flexing with these body conditioning exercises. For best results, incorporate a few of them into your daily routine, or do a longer session two to three times per week.

SQUATS

- Use control to land as softly and quietly as possible. Intensify this exercise by replacing the regular jump with a tuck jump.

Instructions:

- Stand with your feet slightly wider than shoulder-width.
- Slowly lower down into a squat position.
- Engage your core and lower body as you jump explosively, extending your arms overhead.
- Lower back down to the squat position as soon as you land.
- Do 2 to 4 sets of 10 to 15 repetitions.



BURPEES

- To make this exercise more challenging, do 2 to 4 push ups in a row while in the plank position.

Instructions:

- Stand with your feet shoulder-width apart.
- Slowly lower down into a squat position.
- Place your hands on the floor directly under your shoulders.
- Walk or jump your feet back to come into a high plank.
- Walk or jump your feet to the outside of your hands as you come back into a squat position.
- Engage your core as you jump up as high as you can, and extend your arms overhead.
- Do 2 to 3 sets of 8 to 15 repetitions.

MOUNTAIN CLIMBERS

Instructions:

- Begin in a high plank.
- Keep your spine straight as you engage your core and draw in your right knee toward your chest.
- Extend your right leg back to the starting position.
- Repeat on the left side.
- Continue for 1 minute.
- Repeat 2 to 4 times.

LATERAL LUNGES

- This exercise utilizes the muscles along the sides of your legs, targeting your hips, glutes, and thighs.

Instructions:

- Stand with your feet shoulder-width apart.
- Press firmly into your right foot as you take a big step to the side with your left foot.
- Slowly lower your hips down and bend your left leg, keeping your right leg straight.
- Raise back up to standing, and step your left foot back to the starting position.
- Do the opposite side.
- Do 2 to 3 sets of 8 to16 repetitions.

Benefits of Body Conditioning Exercises

- Body conditioning exercises are a form of anaerobic exercise. They're immensely beneficial to your physical health and overall well-being, making them a vital part of any fitness routine. Since they don't require equipment, you can do them anywhere. This is ideal when you're traveling or have a time constraint.

- Body conditioning offers a wide range of benefits, impacting physical fitness, mental well-being, and overall health. It enhances muscular strength, endurance, and flexibility, leading to improved performance across various activities. By targeting different muscle groups, body conditioning reduces the risk of injury, making it essential for athletes and active individuals.

- It also boosts cardiovascular health, helping to regulate blood pressure, improve circulation, and lower the risk of heart-related diseases. Regular conditioning can aid in weight management and promote a healthier metabolism, as it often combines strength and cardio elements that help burn calories and build lean muscle mass.

Boosts Cardiovascular Health / Endurance

- The aerobic advantages of these exercises boost your cardiovascular and respiratory systems, lowering your risk for developing Cardia disease and Diabetes.

- They strengthen your musculoskeletal system, delays aging process slow down bone loss, slows muscle atrophy, and improve bone density, all of which help prevent osteoporosis and muscolo-skeleton diseases and disorders.

Helps Proper Use of Calories

- Increased muscle mass helps you burn calories and stay physically fit. Muscle cells burn more calories and produces energy than fat cells, even while at rest. It’s especially important to do light strengthening exercises for age old persons, since aging causes muscle loss, bone strength and slows your resting metabolic rate.

Builds Muscle and Strength

- Regular involvement of body conditioning exercises help to build muscle and trim fat, resulting in the development of more power, stamina, and agility. All tis improves the efficiency and effectiveness of doing daily routine works such as brisk walking, lifting heavy items, carrying large items, and climbing stairs. Your muscles work faster and more effectively, making all kinds of movement easier and fast thus saving time and energy.

Prevents Cognitive Decline

- Conditioning your body helps you feel better overall as you gain confidence, reduce depressive symptoms, and feel better mentally.

- According to a research, strength training may boost your mental function and prevent cognitive decline. A study found that middle-aged and older adults who participated in 12 weeks of intense resistance training showed improvement in their delayed verbal memory performance when compared to the control group, who didn’t exercise.

Increases flexibility

- Moving through body conditioning exercises trains your body to open up and move in different ways. Lengthening and extending your muscles is vital for improving flexibility, range of motion, and mobility. You'll also develop balance, stability, and coordination.

- All of these help prevent injury and falls that are common as you age. As you start to feel better in your body, you may feel more inspired, motivated, or confident. This can lead to positive changes in other areas of your life. You may be emboldened to try moving your body in different ways.

Cautions

One should have a reasonable level of fitness, energy, and mobility to move through these positions with ease.

- If you're unable to do it, check in with your doctor.
- If you're new to fitness or have any injuries or medical concerns, use caution and begin slowly.
- Modify the exercises to suit your body as necessary. This way you can get used to the movements before moving on to more difficult moves.
- Listen to your body. Take a rest day, or choose a restorative activity on days you're sick, tired, or injured.

Talk to your doctor if you have any medical conditions, take medications, or are concerned with a specific area of your body. Always do a warmup and cooldown before and after your workout session so your body is properly adjusted. Use correct form, technique, and alignment while doing these exercises. Avoid any movement that causes you pain or discomfort.

DO’S

•**Consult a healthcare professional:** Before starting any new workout routine, especially if you have underlying health conditions, consult with a doctor or certified fitness trainer.

•**Warm-up:** Always start with a 5-10 minutes warm-up to prepare your body for exercise. This can include light cardio like jogging or cycling, and dynamic stretches.

•**Proper form:** Focus on maintaining proper form during exercises to prevent injuries and maximize results. Consider seeking guidance from a fitness professional to learn correct techniques.

•**Progressive overload:** Gradually increase the intensity, frequency, or duration of your workouts over time to continue challenging your body and prevent plateaus.

•**Listen to your body:** Pay attention to your body's signals. If you experience pain, stop the exercise and rest.

•**Hydrate:** Drink plenty of water before, during, and after your workout to stay hydrated.

•**Fuel your body:** Eat a balanced diet to provide your body with the energy it needs to perform at its best.

•**Rest and recovery:** Allow your body time to recover between workouts. Incorporate rest days into your routine.

Don'ts

Don't skip warm-up and cool-down: These are crucial for preventing injuries and aiding recovery.

Don't ignore pain: If you experience pain, stop the exercise and rest. Pushing through pain can lead to serious injuries.

Don't compare yourself to others: Focus on your own progress and set realistic goals.

Don't neglect other aspects of fitness: A well-rounded fitness routine includes strength training, cardio, and flexibility exercises.

Don't overtrain: Overtraining can lead to fatigue, injury, and burnout. Balance your workouts with rest and recovery.

Don't neglect nutrition: Proper nutrition fuels your workouts and aids in recovery.

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