Waist Management

Created by: Monique Acton

This workshop will incorporate some fresh ideas to replace your 'routine' abdominal workout. Experience how to target the abdominal muscles using two pool noodles along with changing one's body position in the aquatic environment. Pick up some ideas that can be implemented immediately to manage the waist in your next aquatic class.

It seems that women have always had a fixation on the size of their waistline. Some women of the past resorted to squeezing into corsets to make their waist look smaller and depending on the era, a larger waistline may have been the in thing. A larger waistline was considered to be a sign of prosperity in the earlier years. While the size of one's waistline can make you look good there are also health reasons as to why an eye should be kept on the size of the waistline.

When a person enters into their thirties, they may begin to see the signs of weight gain, say a couple of pounds over the period of a year. If those extra pounds are around the abdomen then there may be a concern as it can increase one's risk of heart disease. According to the Harvard Heart Letter, 'Watch your weight and your waist: extra pounds may mean heart disease', May 2013, Dr. Blackburn, an associate director at Harvard states "The ideal healthy body weight is a BMI of 18.5 to 24.9. Any weight above or below that range will increase the risk of death."

It is not just the amount of fat that a body is carrying; it is the type of fat. There are brown, white, subcutaneous and visceral fat. Brown fat, when stimulated burns energy and produces heat. White fat stores energy and produces hormones that are absorbed into the bloodstream. Subcutaneous fat lies just below the skin and is what is measured when a person uses the skin fold calipers whereas visceral fat is the unseen fat around your organs. It is the visceral fat that is of concern. The visceral fat also called intra-abdominal fat, is the most dangerous type of fat. It can put a person at a greater risk of developing cardiovascular disease and diabetes with this type of fat.

Spot Reduction

The following was a study published in the ACE Fitness Matters, Jan / Feb 2004, Volume 10, Issue 1. It stated the following:

> A study was done at University of Massachusetts back in the eighties. The study was to find out if in fact a person could "spot reduce". Thirteen men participated. They had to perform vigorous abdominal exercises on a daily basis. The study lasted for twenty-seven days. Each of the men in this study had to accumulate a total performance of 5,000 sit-ups over the twenty-seven days. Fat biopsies were taken in three areas: the abdomen, the buttocks, and the upper backs at the beginning the study and then at the end. The study revealed that the men had a loss of fat but not just in the abdomen, it was a similar loss of fat in all three areas. The study went on to reveal that if the calories expended was adequate enough, the

body will show a reduction of fat but it will be from all over and not just the specific area being targeted.

Core Stability and Strength

It seems that the word *core* has been quite the buzz word in the health and fitness world lately. But just what does the core do? Well, for functional movement, the body relies heavily upon the core muscles. A weak core may predispose a person to injury. In dynamic movement, the core muscles stabilize the body (thorax and pelvis) throughout dynamic movement. The core muscles also play a role in a person's overall posture by aligning the spine, ribs and pelvis to resist outside forces against the body, both static, such as holding oneself in a pushup position and dynamic, such as moving through the water with good body alignment and posture.

The core muscles are located in the trunk, torso or also referred to as the midsection. It includes the abdominal muscles such as rectus abdominis, obliques and the back muscles such as the erector spinae, and quadratus lumborum while the muscles around the pelvis including the glutes. Based on which book you reference it can also include the latissimus dorsi and the pectorals too. We will focus on the erector spinae, quadratus lumborum and the abdominal muscles in this workshop.

In order for the spine to maintain neutral alignment, the muscles of the torso need to work together. The benefit of this type of stabilization training is the following:

- Improved posture
- Better usage of body mechanics
- Increase in the endurance and coordination of the back
- Serves as protection for the spine

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Common Muscle Imbalances of the Spine

Muscle balance is important to support the joints of the body and lower the risk of injury. Muscle imbalance can occur due to a several reasons such as:

- Poor posture
- Overuse of a muscle or a muscle group

This is where exercise can make a difference in reducing muscle imbalance, especially with aquatic exercise. By simply submerging the limb or joint in the water and taking it though a full range of motion, the muscles are automatically worked in pairs when utilizing the water's resistance. More focus can also be placed in one direction of movement in order to work the weaker muscles of the pair by slicing in one direction and then using a greater surface area of the hand in the opposite direction or applying more effort to target the weaker muscles of the muscle group.

A watchful eye on your participants as they begin to arrive could give some clues if there are some other areas of the body that may require additional training. If you see a person with rounded shoulders, forward head, or a slouched posture then there should be some type of core training included in their workout to help strengthen the weak / underworked muscles and stretch the tight / overworked muscles.

The core can suffer if not trained on a regular basis. The abdominal and back muscles tend to become weak over time so it would be beneficial to include a portion of the aquatic program to focus on improving core strength and function.

Let's take a quick look at the core muscles that are being focused on in this workshop.

Rectus Abdominis

- Flexion of the trunk
- Assists in abdominal compression.
- Functions to stabilize the trunk

Abdominal Oblique Muscles

The abdominal oblique muscle group consists of the internal and external obliques.
The external oblique muscle

- One side works to bend the spine laterally and also rotates bringing the shoulder of that side forward.
- Both sides work together to flex the spine / torso.

The internal oblique muscle

- One side works to bend the spine laterally and also rotates bringing the shoulder of the opposite side forward.
- Both sides work together to flex the spine / torso.

Transverse Abdominis

This muscle runs horizontal in the lower area of the abdomen.

- Provides support for the lumbar spine and the vital organs of the abdomen.
- Responsible for posture maintaining correct posture
- Cornerstone for restoring fitness

Erector Spinae

This is a group of muscles is located in the back of the torso and runs vertically, shoe lacing up the spine .

- Provides support for the back when bending forward.
- Contract during lateral flexion to balance the abdominals
- May assist trunk during unilateral rotation
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Quadratus Lumborum

This muscle is located deep in the low back and is on both sides of the spine.

- Stabilizes the spine and pelvis when a person is standing upright
- Is activated when a person is flexed laterally to one side

The Benefits of the Aquatic Environment

The aquatic environment brings many benefits to one's workout. It is a liquid environment, which offers buoyancy to help eliminate stress and impact to the joints. It also provides a great workout even without equipment allowing one to work the muscles

in pairs without having to reposition the body. Adding in additional equipment when one is ready will only enhance the workout. A person can see an improvement in their cardiorespiratory endurance, muscular endurance and muscular strength as well as improved balance and agility.

Buoyant Equipment and Safety Precautions

The water is an excellent tool and offers many benefits of training the muscles. A person should have an understanding of how to "use" the water when first beginning aquatic training. Not just on how to move the limbs but the right water depth and how to stabilize the core. Equipment is another progression. Our focus is on buoyant equipment. Buoyant equipment comes in different strengths so having several different intensities available will relate to more people.

Next we look at whether it is more beneficial to hold or wear the buoyant equipment. This really is going to be a personal preference. Someone with arthritis of the hands may experience more pain when holding the hand bars, so for these individuals, wearing a cuff around the wrists would give them the same type of training as the rest of the class yet without the pain.

Basic Body Types

ACE fitness article 'How to Eat and train for an endo body type', by Tiffani Bochus Sept 2014 states that a majority of people fall into three basic body types: endomorph, mesomorph and ectomorph. The body types can help nutritionists, doctors and exercise physiologists have used these terms to help design personalized programs based on the body type determined. By having an understanding of the different body types and how fat is stored on the body can give better insight as to how they may respond when exercising in the water in various positions.

Endomorph

The endomorph's general characteristics include a round shape, soft body with wide hips and shoulders. In the aquatic environment:

_____

_____

_____

Mesomorph

The mesomorph's general characteristics include a more athletic appearance with broad shoulders and more muscle definition. In the aquatic environment:

_____

_____

_____

Ectomorphs

The ectomorph's general characteristics include a tall lean appearance with little body fat and muscle. In the aquatic environment:

_____

_____

_____

Watch the clips and answer the following questions.

1. What are some form cues you could give for the exercises being demonstrated?

2. Did you observe anything that needs to be addressed or cued? Anything to be cautious of?

3. Can you make the exercise being demonstrated easier and if so, how?

Instructions: Design the abdominal portion of the workout for each individual based on their body type. Determine if they would be best suited in prone, supine, vertical or all of the above. List what exercises would you have them perform, the equipment designated and why?

1. Bobby is a basketball player. He is 6'6 and weighs 166lbs and is 25 years old. Bobby's body type is_____

   Design 2 exercises based on his body type.

   _____

   _____

2. Anne is a fitness instructor who is very muscular. She can eat anything she wants and not gain a pound. Some say she is proportioned like an hourglass yet tends to store a bit more of her body fat in the hip / thigh area.

   Anne's body type is _____

   Design 2 exercises based on her body type.

   _____

   _____

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3. Ron is a wrestler wants to change his program up. He would like assistance in the area of his abdominal muscles. He has a round shape with wide shoulders and wide hips yet tends to store more of his body fat in the abdomen area. He gains muscle easily but has trouble losing weight.
   Ron's body type is _____

   Design 2 exercises based on his body type.
   _____

   _____

Waist Management – Pool Workout

Warm up – (5 minutes)
Walking forward, dragging pushing one noodle
Rhythmical stretching – round the back, stretch the chest

Side step (R) with shoulder circles
    Rhythmical stretching – lateral side bends to the side NOT holding noodle

Reverse lunge backing up
    Rhythmical stretching – hamstrings / hip flexor same leg

Side Step (L) with shoulder blade squeezes

Tightrope walk forward, noodle opposite side of leg moving forward

Rhythmical stretching – rotation with reaching arms across or draw a circle
    around your body

Progressions – Basic to Advanced

Two Pool Noodles – Vertical Position: Standing

Standing – Center Stance
    The body rotates with added pool noodle
    Right side only,
    Left side only
    Alternate R & L

Standing – Tandem Stance
    The body rotates with added pool noodle
    Right side only
    Left side only
    Alternate R & L

Vertical Position – Floating

Sitting with one noodle in knot
    Pelvic tilts
    Clock - Lateral flexion

Right side only
Alternate

2 pelvic tilts / lateral flexion R & L

Kneeling –Knees / Ankles, knotted noodle

Pelvic tilts - knot is away from the chest yet still close

UNKNOT THE NOODLE: Kneeling –Knees / Ankles

Clock – Lateral flexion – hold one end of the noodle in front, lean to the other side

Right side only
Left side only
Alternate

2 pelvic tilts / lateral flexion R& L

Prone Position

Prone Positions – modified: Free noodle open & to the front and ride one noodle

Trunk flexion
Pelvic tilts – barely curling under tailbone
Alternate – trunk flexion / pelvic tilts

Supine Position

Supine Position – lie on one noodle, free noodle to the back

Trunk flexion
Rotation – place one foot on the end of noodle, opposite arm reaches across to the free leg, then they both open out again
Rotate in transverse plane R, L, then trunk flexion X2

Supine Position – one noodle around the back, one under ankles and knees

Trunk flexion
Rotation – turn the body w/chest faces the sky ▪ hips sideways
▪one foot on top of noodle ▪one under
Upper body rotates / reaches towards the top foot
Lateral flexion – move in the transverse plane
Alternate – Rotate R, L,
Right only – 8, Left only – 8
R, L, R, R & L, R, L, L
Trunk flexion X2 / lateral flexion R & L

(Jog over and put up one noodle)

One Pool Noodle

Standing – Center Stance: scull hands for balance

Rotate side – pause, front – pause, side – pause

Standing – Tandem Stance

Right foot forward
Begin to rotate side – pause, front – pause, side – pause
Left foot forward
Rotate side – pause, front – pause, side – pause

Sitting – In Place & Travel

Travel forward – bring the arms to the front of noodle

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Travel backward – bring the noodle to the front
Travel side R & L

Kneeling – In Place & Travel

Travel forward – bring arms to front of noodle
Travel backward – bring the noodle to the front
Travel side R & L

Supine Position

Curl
Pelvic tilt
Crunch

Cool down

One noodle in hands,

Draw a circle around you
Sweep with both hands on the noodle – side to side, 3 & hold
Cat Stretch – round the back
Sweep with both hands on the noodle – side to side, 3 & hold
Cat Stretch – round the back

Place the noodle under one knee

Ankle circle both directions
Hamstring stretch
Adductor stretch – if no pain
Remove noodle – have a seat.

REPEAT WITH NOODLE UNDER OTHER KNEE

Ear to shoulder
Look behind you
Stretch the noodle up and reach up 3 & hold
Noodle on surface, 3 deep breaths!

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