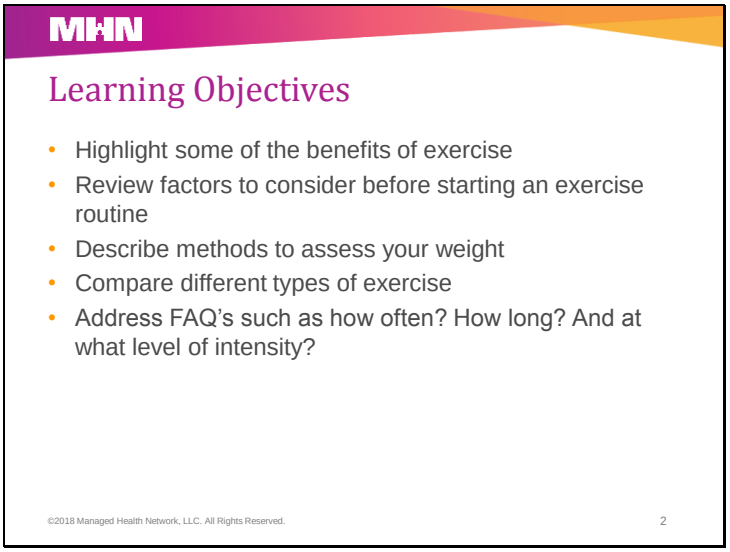
Slide 1

Participant Handbook

Slide 2



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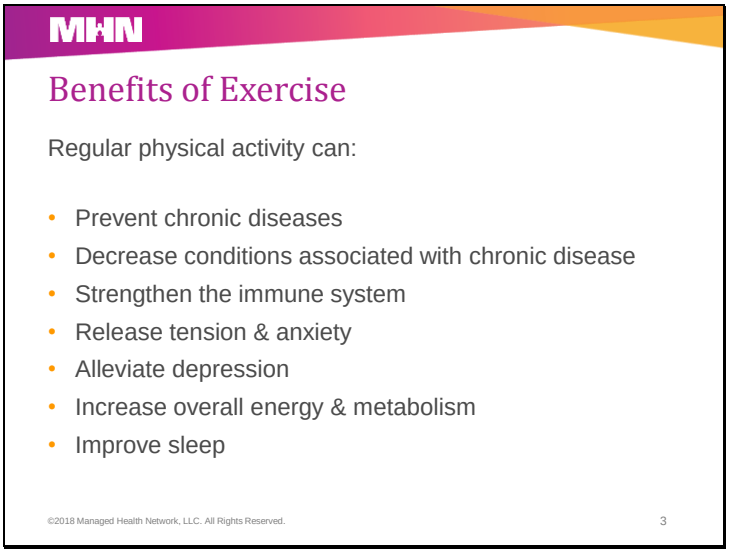

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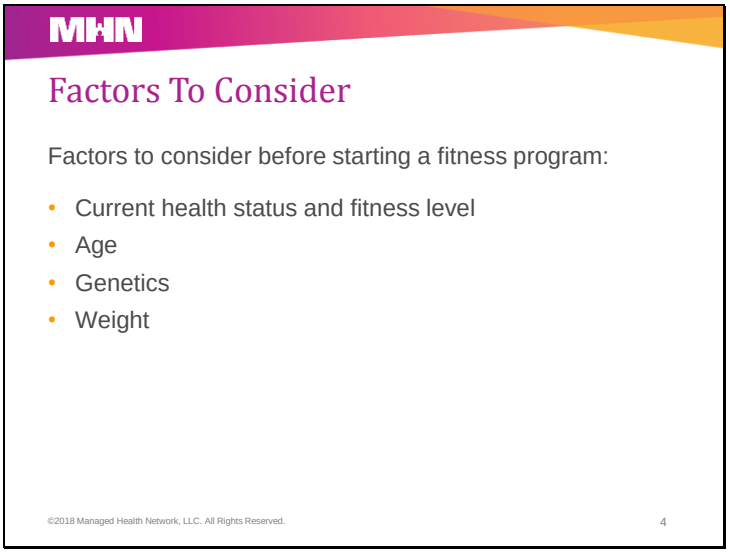

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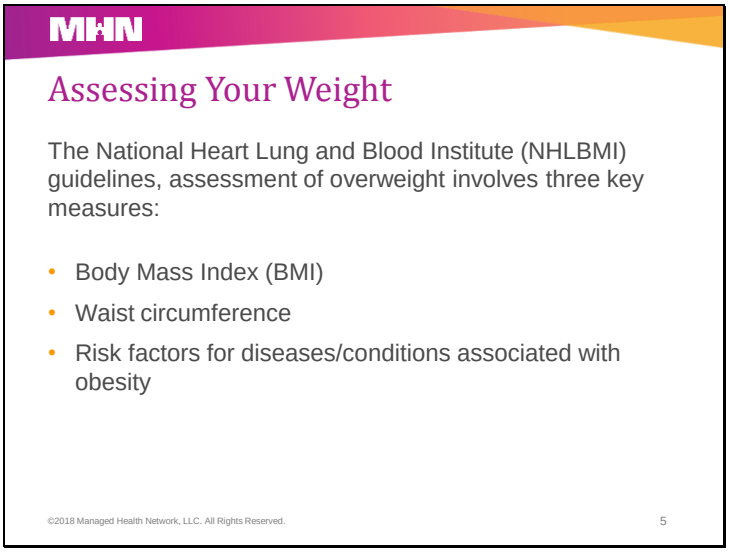

Slide 6

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Body Mass Index Table

	Normal						Overweight					Obese										Extreme Obesity														
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Height (inches)	Body Weight (pounds)																																			
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276
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76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443

Source: Adapted from *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.*

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Types of Exercise

- What form(s) of exercise you choose depends on what you will enjoy, what works for you and your body, and, what aligns with your goals
- Are you seeking to improve your cardiovascular health? Gain strength? Develop toned muscles? Lose weight? Improve balance and flexibility?

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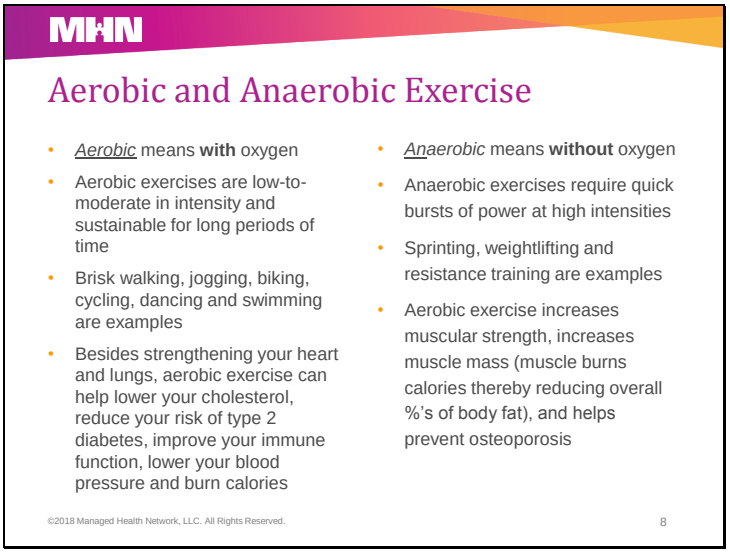

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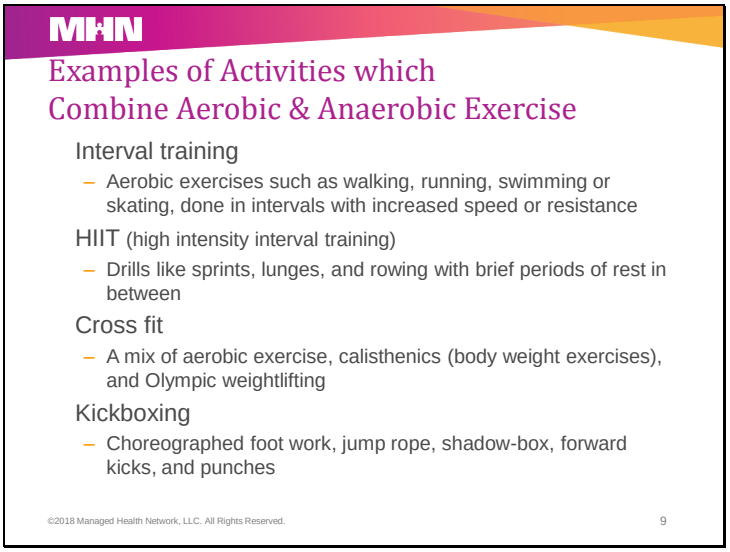

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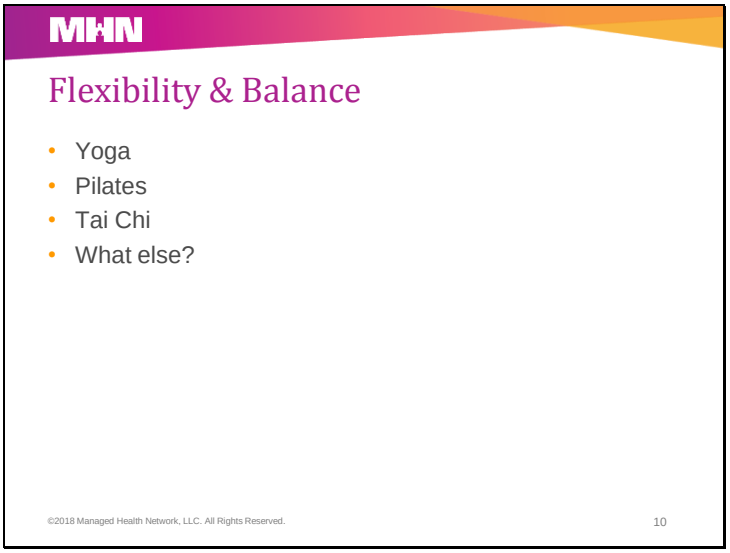

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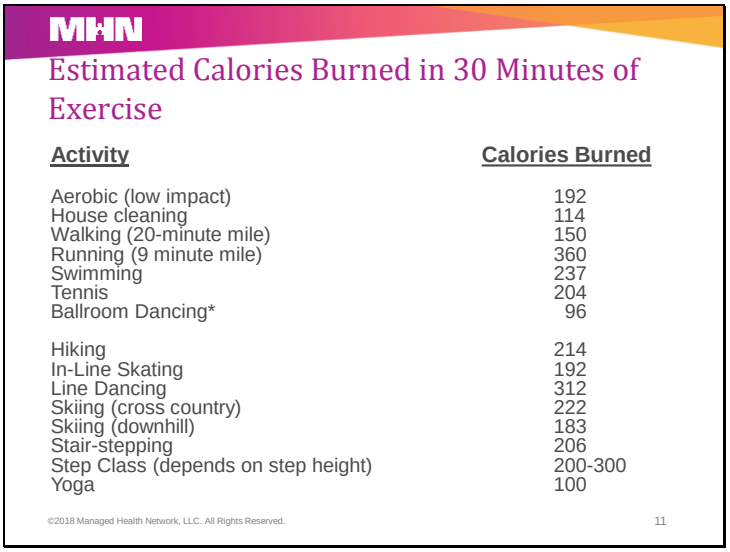

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What's Recommended In Terms of Frequency?

- ***Aerobic*** - at least 150 minutes of moderate aerobic activity or 75 minutes of vigorous aerobic activity a week, or a combination of moderate and vigorous activity
  - Low-intensity aerobics (such as walking) can be done every day in order to promote good cardiovascular conditioning
  - Intense aerobic exercise (sprinting, for example) should be done every two or three days, as the muscles used need to recover
- ***Strength*** training - at least two days a week (all major muscle groups)
  - If you do more, ensure that you take breaks between each day of workout
  - Using muscles too frequently can cause muscle damage

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What Level of Intensity Is Right?

- Before your start exercising, calculate your Target Heart Rate (THR)
- Your Target Heart Rate (THR), or training heart rate:
  - is the *range* of heart rate that is needed during aerobic exercise to allow the heart and lungs to receive the most benefit from your workout (and to burn the most calories)
  - represents 50-85% of your heart rate reserve (the difference between your resting heart rate and your maximum heart rate)

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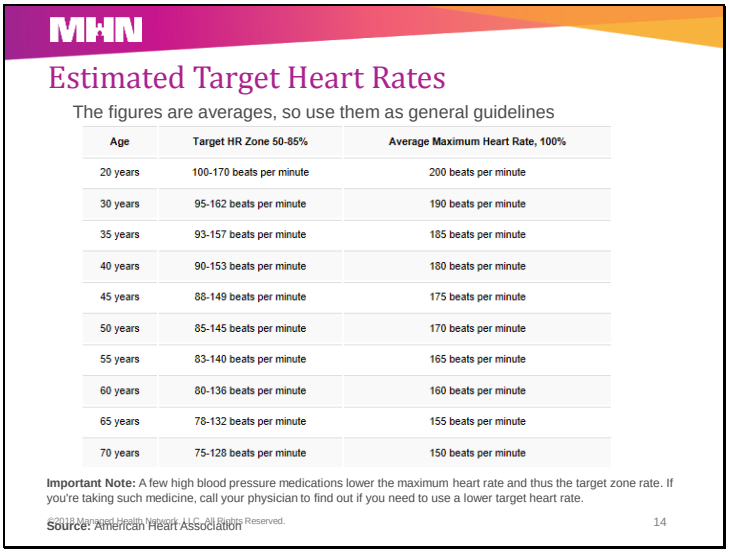

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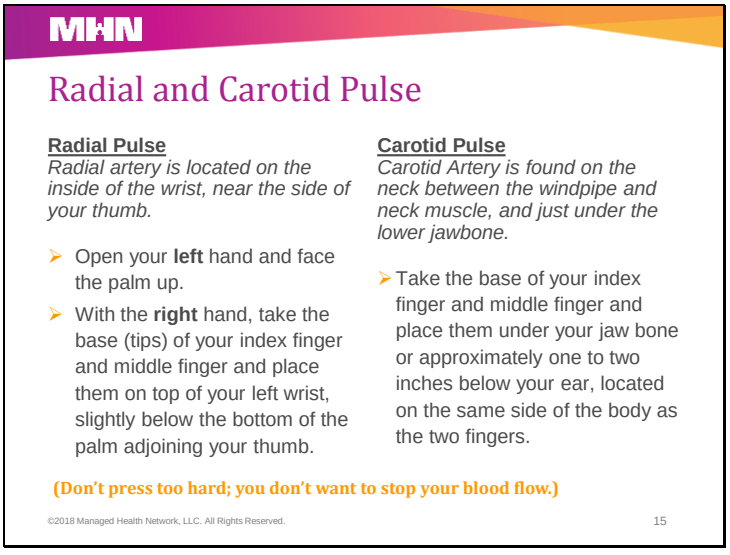

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What Level of Intensity Is Right? *Cont.*

Intensity Level	% of Maximum Heart Rate
Moderately Intense Activities	50-69%
Hard Physical Activities	70 to less than 90%

- During the first few weeks of working out, aim for the lower ranger of your target zone (50%) and gradually build up to the higher range (85%).
- After six months or more, you may be able to exercise comfortably at up to 85% of your maximum heart rate.

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A Word of Caution About Heart Rates

- The following factors can affect both your morning pulse and training pulse:
  - Stress
  - Work
  - Emotional issues
  - Nutrition
  - Hydration (Dehydration will ⇑ your Heart Rate)
  - Heat
  - Higher Altitudes (⇑ your Heart Rate at the same level of intensity)

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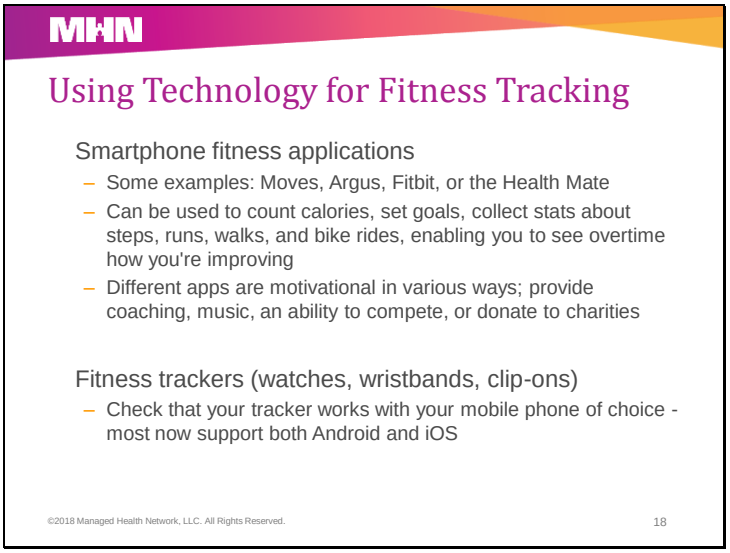

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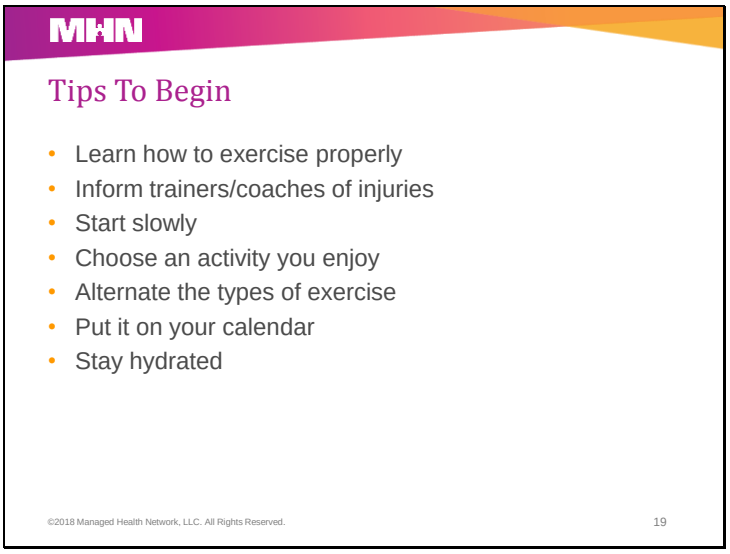

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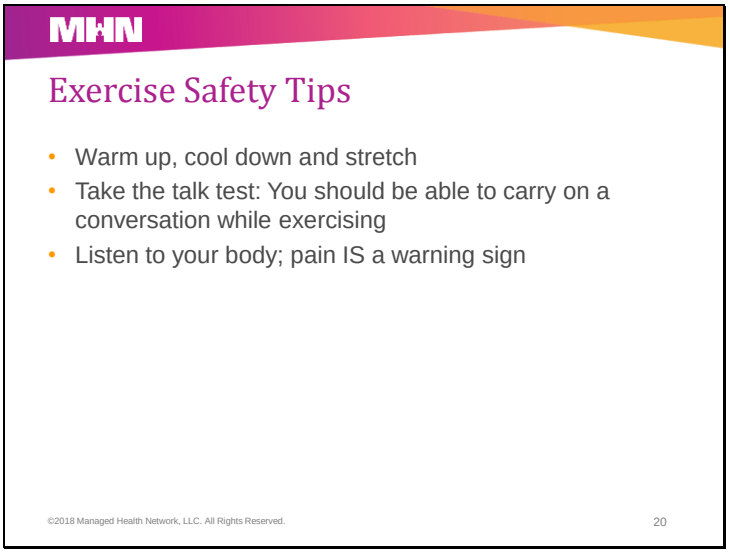

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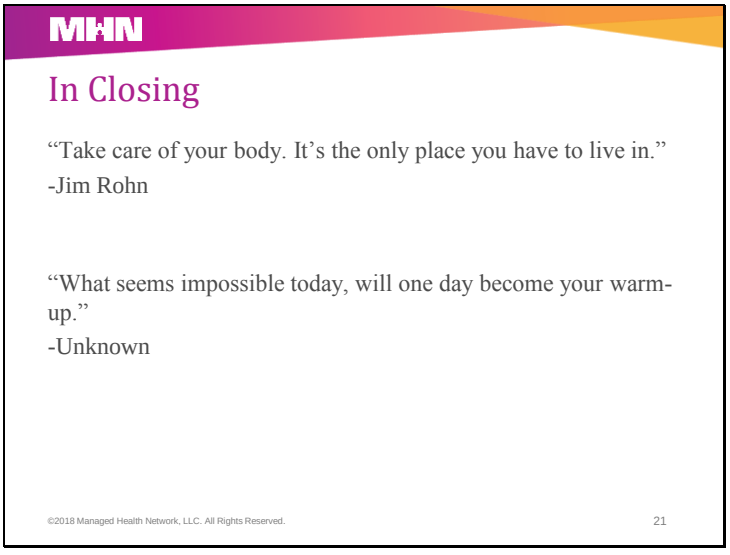

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Handout A: Connect with Your Doctor – Pre-Exercise Safety Tips

Although physical activity is perfectly safe for most people, sometimes it's important to get a doctor's OK before you exercise.

Talk to your doctor before you start an exercise program if:

- You're a man older than age 40 or a woman older than age 50
- You've had a heart attack
- You have a family history of heart disease before age 55
- You have heart, lung, liver or kidney disease
- You feel pain in your chest, joints or muscles during physical activity
- You have high blood pressure, high cholesterol, diabetes, arthritis, osteoporosis or asthma
- You have had joint replacement surgery
- You smoke
- You're overweight or obese
- You take medication to manage a chronic condition
- You have an untreated joint or muscle injury, or persistent symptoms after a joint or muscle injury
- You're pregnant
- You're unsure of your health status

Discuss with your doctor, the:

- Type of exercise you intend to do
- Frequency at which you intend to exercise
- Intensity at which you intend to exercise
- Benefits of monitoring your heart rate

If you have questions, don't hesitate to ask them. Seek guidance and input.

Working with your doctor ahead of time may be the best way to plan an exercise program that's right for you. Consider it the <u>first step</u> on the path to physical fitness.

Handout B: Assessing Your Weight

The National Heart, Lung and Blood Institute (NHLBI) guideline's assessment of overweight individuals involves three key measures:

1.) Body Mass Index (BMI)
2.) Waist Circumference
3.) Risk factors for disease/conditions associated with obesity

Body Mass Index
The Body Mass Index (BMI) is a number calculated from a person's weight and height and is used as a screening tool to identify possible weight problems for adults. However, the BMI is not a diagnostic tool. So, if for example, a person has a high BMI, they should not assume that there is a health risk. They should ask their healthcare provider to perform further assessments. One of the assessments used, is a waist circumference.

Waist Circumference
Waist measurement is a good indicator of your abdominal fat, which is another predictor of your risk for developing heart disease and other diseases. This risk increases with a waist measurement for over 40 inches in men and over 35 inches in women. (A person could be in his BMI range but his waist could be 42 inches in circumference.)

Risk Factors for diseases/conditions associated with obesity:

High blood pressure (hypertension)	Physical Inactivity
High LDL-cholesterol ("bad" cholesterol)	Cigarette Smoking
Low HDL-cholesterol ("good" cholesterol)	High triglycerides
Family history of premature heart disease	High blood glucose (sugar)

There may be exceptions but here are general guidelines to aim for:

Measure	Target
Target BMI	18.5–24.9
Waist Size	Men: less than 40 in. Women: less than 35 in.
Blood Pressure	120/80 mm Hg or less
LDL (bad cholesterol)	Less than 100 mg/dl
HDL (good cholesterol)	Men: more than 40 mg/dl Women: more than 50 mg/dl
Triglycerides	Less than 150 mg/dl
Blood sugar (fasting)	Less than 100 mg/dl

Source: http://www.nhlbi.nih.gov/health/health-topics/topics/obe/diagnosis.html .

Body Mass Index Table

Body Mass Index Table

	Normal						Overweight					Obese										Extreme Obesity														
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Source: https://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmi_tbl.htm

What is a healthy BMI?

- 24 or less is Ideal Weight
- 25 to 29.9 is Overweight
- 30 to 39 is Obese

To get your BMI, find your height in inches (first column on the left), and then find your weight in the corresponding row. See where they intersect (which column: normal, overweight, and so on). Or, to calculate your BMI:

- Multiply your weight in pounds by 703.
- Divide that answer by your height in inches.
- Divide that answer by your height in inches again

Note: This chart takes in to consideration height and weight, only, and not waist measurements.

Also, percentage of body mass or lean muscle is not calculated. So, someone who is 5’5 and is in great physical shape, may be considered overweight, if they have a large amount of muscle mass (such as a body builder or athlete).

Handout C: Forms of low Impact Exercise

Yoga

Yoga involves a series of both moving and stationary poses, combined with deep breathing. As well as reducing anxiety and stress, yoga can also improve flexibility, strength, balance, and stamina. Practiced regularly, it can also strengthen the relaxation response in your daily life. Since injuries can happen when yoga is practiced incorrectly, it's best to learn by attending group classes, hiring a private teacher, or at least following video instructions.

What type of yoga is best for stress?

Although almost all yoga classes end in a relaxation pose, classes that emphasize slow, steady movement, deep breathing, and gentle stretching are best for stress relief.

- **Satyananda** is a traditional form of yoga. It features gentle poses, deep relaxation, and meditation, making it suitable for beginners as well as anyone primarily looking for stress reduction.
- **Hatha yoga** is also reasonably gentle way to relieve stress and is suitable for beginners. Alternately, look for labels like *gentle*, *for stress relief*, or *for beginners* when selecting a yoga class.
- **Power yoga**, with its intense poses and focus on fitness, is better suited to those looking for stimulation as well as relaxation.

If you're unsure whether a specific yoga class is appropriate for stress relief, call the studio or ask the teacher.

Tai chi

If you've ever seen a group of people in the park slowly moving in synch, you've probably witnessed tai chi. Tai chi is a self-paced, non-competitive series of slow, flowing body movements. These movements emphasize concentration, relaxation, and the conscious circulation of vital energy throughout the body. Though tai chi has its roots in martial arts, today it is primarily practiced as a way of calming the mind, conditioning the body, and reducing stress. As in meditation, tai chi practitioners focus on their breathing and keeping their attention in the present moment.

Tai chi is a safe, low-impact option for people of all ages and fitness levels, including older adults and those recovering from injuries. Like yoga, once you've learned the basics of tai chi or qi gong, you can practice alone or with others, tailoring your sessions as you see fit.

Pilates

Pilates involves low-impact flexibility and muscular strength and endurance movements and emphasizes proper postural alignment, core strength and muscle balance. There are different types and some are done on a mat on floor, others one a piece of equipment called a Transformer.

Pilates helps to improve balance and core strength and increase body awareness, and may ease pain; improving daily life for people suffering from chronic low-back pain. Some research has also linked Pilates to better flexibility, trunk stability, injury prevention and athletic performance.

Handout D: How to Calculate your Target Heart Range (THR)

The following instructions show how to calculate your THR range.

Instructions	*Example*
Calculate low end of the THR range	
1. First take your age	30
2. Find your resting heart rate. You can find this by counting your pulse (heart beat) for 10 seconds and multiply x 6. Or, count for 60 seconds	60
3. Subtract your age from 220	220-30=190
4. Subtract your resting heart rate from the amount in step 3	190-60 (beats per minute) = 130
5. Multiply the amount from step 4 by **65%** (HHR – heart rate reserve)	130x65%=84.5 or 85
6. Add amount from step 5 to resting heart rate	85+60=145 beats per minute (low end of THR range)
Calculate high end of the THR range	
1. Subtract your age from 220	220-30=190
2. Subtract your resting heart rate from the amount in step 1	190-60 (beats per minute) = 130
3. Multiply the amount from step 2 by **85%** (HHR – heart rate reserve)	130x85%=110.5 or 111
4. Add amount from step 3 to resting heart rate	111+60=171 beats per minute (high end of THR range)
Target Heart Rate = 145-171 beats per minute.	

Handout E: Fitness program: 5 steps to get started

Are you thinking about starting a fitness program? Good for you! You're only five steps away from a healthier lifestyle.

Starting a fitness program may be one of the best things you can do for your health. Physical activity can reduce your risk of chronic disease, improve your balance and coordination, help you lose weight — and even improve your sleep habits and self-esteem. And there's more good news. You can start a fitness program in only five steps.

1. Assess your fitness level

You probably have some idea of how fit you are. But assessing and recording baseline fitness scores can give you benchmarks against which to measure your progress. To assess your aerobic and muscular fitness, flexibility, and body composition, consider recording:

- Your pulse rate before and immediately after walking 1 mile (1.6 kilometers)
- How long it takes to walk 1 mile or 400 meters, or how long it takes to run 1.5 miles (2.41 kilometers)
- How many half sit-ups, standard pushups or modified pushups you can do at a time
- How far you can reach forward while seated on the floor with your legs in front of you
- Your waist circumference, just above your hipbones
- Your body mass index

2. Design your fitness program

It's easy to say that you'll exercise every day. But you'll need a plan. As you design your fitness program, keep these points in mind:

- Consider your fitness goals. Are you starting a fitness program to help lose weight? Or do you have another motivation, such as preparing for a marathon? Having clear goals can help you gauge your progress and stay motivated.
- Create a balanced routine. The Department of Health and Human Services recommends getting at least 150 minutes of moderate aerobic activity or 75 minutes of vigorous aerobic activity a week, or a combination of moderate and vigorous activity. For example, try to get about 30 minutes of aerobic exercise on most days of the week. Also aim to incorporate strength training of all the major muscle groups into a fitness routine at least two days a week.
- Start low and progress slowly. If you're just beginning to exercise, start cautiously and progress slowly. If you have an injury or a medical condition, consult your doctor or an exercise therapist for help designing a fitness program that gradually improves your range of motion, strength and endurance.
- Build activity into your daily routine. Finding time to exercise can be a challenge. To make it easier, schedule time to exercise as you would any other appointment.

Plan to watch your favorite show while walking on the treadmill, read while riding a stationary bike, or take a break to go on a walk at work.

- Plan to include different activities. Different activities (cross-training) can keep exercise boredom at bay. Cross-training using low-impact forms of activity, such as biking or water exercise, also reduces your chances of injuring or overusing one specific muscle or joint. Plan to alternate among activities that emphasize different parts of your body, such as walking, swimming and strength training.
- Allow time for recovery. Many people start exercising with frenzied zeal — working out too long or too intensely — and give up when their muscles and joints become sore or injured. Plan time between sessions for your body to rest and recover.
- Put it on paper. A written plan may encourage you to stay on track.

3. Assemble your equipment

You'll probably start with athletic shoes. Be sure to pick shoes designed for the activity you have in mind. For example, running shoes are lighter in weight than cross-training shoes, which are more supportive.

If you're planning to invest in exercise equipment, choose something that's practical, enjoyable and easy to use. You may want to try out certain types of equipment at a fitness center before investing in your own equipment.

You might consider using fitness apps for smart devices or other activity tracking devices, such as ones that can track your distance, track calories burned or monitor your heart rate.

4. Get started

Now you're ready for action. As you begin your fitness program, keep these tips in mind:

- Start slowly and build up gradually. Give yourself plenty of time to warm up and cool down with easy walking or gentle stretching. Then speed up to a pace you can continue for five to 10 minutes without getting overly tired. As your stamina improves, gradually increase the amount of time you exercise. Work your way up to 30 to 60 minutes of exercise most days of the week.
- Break things up if you have to. You don't have to do all your exercise at one time, so you can weave in activity throughout your day. Shorter but more-frequent sessions have aerobic benefits, too. Exercising in 10-minute sessions three times a day may fit into your schedule better than a single 30-minute session.
- Be creative. Maybe your workout routine includes various activities, such as walking, bicycling or rowing. But don't stop there. Take a weekend hike with your family or spend an evening ballroom dancing. Find activities you enjoy to add to your fitness routine.
- Listen to your body. If you feel pain, shortness of breath, dizziness or nausea, take a break. You may be pushing yourself too hard.

- Be flexible. If you're not feeling good, give yourself permission to take a day or two off.

5. Monitor your progress

Retake your personal fitness assessment six weeks after you start your program and then again every few months. You may notice that you need to increase the amount of time you exercise in order to continue improving. Or you may be pleasantly surprised to find that you're exercising just the right amount to meet your fitness goals.

If you lose motivation, set new goals or try a new activity. Exercising with a friend or taking a class at a fitness center may help, too.

Starting an exercise program is an important decision. But it doesn't have to be an overwhelming one. By planning carefully and pacing yourself, you can establish a healthy habit that lasts a lifetime.

Source: http://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/fitness/art-20048269