


The Three Facets of Fitness

Vital Energy *Out* Strategies for Healthy Weight Management

	Benefits	Recommendations	Suggestions
Cardiovascular (Aerobic) Training	<ul style="list-style-type: none"> ✓ Strengthens heart/lungs.  ✓ Burns fat for fuel. ✓ Burns calories consumed. ✓ Speeds up muscle cell metabolism. ✓ Helps regulate your metabolism. 	<p>F.I.T.T. Principle:</p> <ul style="list-style-type: none"> ✓ Frequency: 3-5 times/week. ✓ Intensity: $(220 - \text{age}) \times .60$ to $.85 =$ your training heart rate. ✓ Time: start at 10 minutes progressing to 60 minutes as you become conditioned. ✓ Type of exercise: rhythmic continuous movement (walking, bicycling, etc.). 	<ul style="list-style-type: none"> ✓ Warm up: 3-5 minutes of light activity to stretch muscles and ease the stress on the heart. ✓ Cool down: 3-5 minutes of light activity to minimize muscle soreness and prevent cramping.
Flexibility Training	<ul style="list-style-type: none"> ✓ Increases range of motion in joints. ✓ Improves tendon, ligament, and muscles elasticity. ✓ Uses calories. ✓ Reduces injury risk. ✓ Improves circulation to extremities. 	<ul style="list-style-type: none"> ✓ Frequency: 2-3 times/week. ✓ Hold stretches for 10-30 seconds. ✓ Repeat 4 times per stretch for each major muscle group. 	<ul style="list-style-type: none"> ✓ Yoga, personal training with emphasis on flexibility, gym flexibility classes, stretching and yoga videos are all good options.
Strength Training	<ul style="list-style-type: none"> ✓ Builds muscle. ✓ Increases resting metabolic rate (RMR). ✓ Uses calories. ✓ Helps strengthen bones. 	<p>F.I.R.S.T. Principles:</p> <ul style="list-style-type: none"> ✓ Frequency: 2-3 times/week (48 hours between sessions) ✓ Intensity: low-moderate; goal to progressively challenge muscles. ✓ Repetition: 8-15 per exercise. ✓ Sets: 1-2 for each muscle group. ✓ Type: full range of motion resistance for major muscle groups. 	<ul style="list-style-type: none"> ✓ Personal training, strength training equipment, strength/sculpting classes, home weights, strength training videos.

Major Muscle Groups

- ✓ Legs (quadriceps, hamstrings, etc.)
- ✓ Gluteals
- ✓ Calves
- ✓ Chest (pectorals)
- ✓ Back (latissimus, dorsi, rhomboids, trapezius, etc.)
- ✓ Shoulders (deltoids, etc.)
- ✓ Arms (triceps, biceps, etc.)
- ✓ Core (abdominals, obliques, erector, spinae)

Physical Activity Guidelines for Americans

- ✓ Moderate Intensity: ≥ 150 - 300 minutes (2.5 -5 hrs.) a week.
- ✓ Vigorous Intensity: ≥ 75 -150 minutes (1.25 – 2.5 hrs.) a week.
- ✓ Muscle-strengthening activities involving all major muscle groups ≥ 2 days per week.

How do I Safely Exercise?

- ✓ Understand the risks but be confident that physical activity can be safe for almost everyone.
- ✓ Choose the right types of physical activity that are appropriate for your current fitness level and health goals.
- ✓ Increase physical activity gradually over time by starting with low lower-intensity activities and gradually increasing intensity, duration, and frequency of exercise.

Do I still need to exercise to just maintain weight?

A combination of diet and exercise helps maintain or increase fat-free mass and keeps your resting metabolic rate elevate. Compared to dieting alone, a combination of exercise and a healthy diet leads to a larger percentage of fat loss. Dieting alone causes a DECREASE in calorie-burning muscle, which can lower your metabolism. Obviously, this makes it harder to maintain your weight and harder to lose weight!

My Maintenance Cardiovascular Activity Log

Examples: walking, running, cycling, swimming, rowing, dancing, high-intensity interval training (HIIT), etc.

Date	Time	Activity/Exercise Description	Intensity	Duration	Distance/Steps
Example <u>01/01/2020</u>	6:30 am / (pm)	Walked on the treadmill at gym.	(mild) / moderate / vigorous	220 minutes	2.5 (miles) / steps
___/___/___	___ am / pm		mild / moderate / vigorous	___ minutes	___ miles / steps
___/___/___	___ am / pm		mild / moderate / vigorous	___ minutes	___ miles / steps
___/___/___	___ am / pm		mild / moderate / vigorous	___ minutes	___ miles / steps
___/___/___	___ am / pm		mild / moderate / vigorous	___ minutes	___ miles / steps
___/___/___	___ am / pm		mild / moderate / vigorous	___ minutes	___ miles / steps
___/___/___	___ am / pm		mild / moderate / vigorous	___ minutes	___ miles / steps
___/___/___	___ am / pm		mild / moderate / vigorous	___ minutes	___ miles / steps

My Maintenance Strength/Resistance Activity Log

Examples: bodyweight (yoga, Pilates), free-weights, weight machines, kettlebells, resistance bands, etc.

Date	Time	Activity/Exercise Description	Weight Progression	Repetitions	Sets
Example <u>01/01/2020</u>	6:30 am / (pm)	<i>Back: seated row, lateral pull-downs, assisted pull-ups, wood-chops, deadlifts.</i>	10-50 lbs., 10-50 lbs., N/A, 7-20 lbs., 10-30 lbs.	5-10 reps each	1 set(s) each
_ / _ / _	_ am / pm			_ reps each	_ set(s) each
_ / _ / _	_ am / pm			_ reps each	_ set(s) each
_ / _ / _	_ am / pm			_ reps each	_ set(s) each
_ / _ / _	_ am / pm			_ reps each	_ set(s) each
_ / _ / _	_ am / pm			_ reps each	_ set(s) each
_ / _ / _	_ am / pm			_ reps each	_ set(s) each
_ / _ / _	_ am / pm			_ reps each	_ set(s) each

My Maintenance Flexibility Activity Log

Examples: yoga, Pilates, stretch bands/straps, stretch machine/trainer, etc.

Date	Time	Activity/Exercise Description	Areas of Focus	Intensity	Duration
Example 01/01/2020	6:30 am / pm	Beginners yoga class at the gym	Back, neck, hips	mild / moderate / vigorous	60 minutes
___/___/___	___ am / pm			mild / moderate / vigorous	___ minutes
___/___/___	___ am / pm			mild / moderate / vigorous	___ minutes
___/___/___	___ am / pm			mild / moderate / vigorous	___ minutes
___/___/___	___ am / pm			mild / moderate / vigorous	___ minutes
___/___/___	___ am / pm			mild / moderate / vigorous	___ minutes
___/___/___	___ am / pm			mild / moderate / vigorous	___ minutes
___/___/___	___ am / pm			mild / moderate / vigorous	___ minutes

Monitoring Exercise Intensity

To maintain a healthy weight, both energy *in* through healthy nutrition and energy *out* through exercise are required. To receive optimal cardiovascular and metabolic benefits you will need to increase your heart rate during exercise and exercise within a recommended intensity range.

What is My Target Heart Rate?

Moderate-Intensity Physical Activity: The *Physical Activity Guidelines for Americans* suggest that for moderate-intensity physical activity, your *target heart rate* should be between 64% and 76% of your *maximum heart rate* and for vigorous-intensity physical activity, your target heart rate should be between 77% and 93% of your maximum heart rate.

To estimate your maximum age-related heart rate, subtract your age from 220.

Example: Moderate-intensity physical activity (target heart rate of 64%-76% of max heart rate)

- Age: 40
- *Maximum heart rate:* $220 - 40 \text{ years} = 180 \text{ beats per minute (bpm)}$
- *Target heart rate:* $180 \times 0.64 = \mathbf{115 \text{ bpm}}$ and $180 \times 0.76 = \mathbf{137 \text{ bpm}}$

To maintain moderate-intensity physical activity, a 40-year-old person's heart rate should remain between 115 and 137 bpm during physical activity.

Example: Vigorous-intensity physical activity (target heart rate of 77%-93% of max heart rate)

- Age: 40
- *Maximum heart rate:* $220 - 40 \text{ years} = 180 \text{ beats per minute (bpm)}$
- *Target heart rate:* $180 \times 0.77 = \mathbf{139 \text{ bpm}}$ and $180 \times 0.93 = \mathbf{167 \text{ bpm}}$

To maintain vigorous-intensity physical activity, a 40-year-old person's heart rate should remain between 139 and 167 bpm during physical activity.

My max heart rate: $220 - \underline{\hspace{2cm}}$ (age in years) = $\underline{\hspace{2cm}}$ bpm

My moderate-intensity activity target heart rate range is between:

$\underline{\hspace{2cm}}$ (max heart rate) $\times 0.64 = \underline{\hspace{2cm}}$ bpm **and** $\underline{\hspace{2cm}}$ (max heart rate) $\times 0.76 = \underline{\hspace{2cm}}$ bpm

My vigorous-intensity activity target heart rate is between:

$\underline{\hspace{2cm}}$ (max heart rate) $\times 0.77 = \underline{\hspace{2cm}}$ bpm **and** $\underline{\hspace{2cm}}$ (max heart rate) $\times 0.93 = \underline{\hspace{2cm}}$ bpm

The Rate of Perceived Exertion (RPE) Scale

What is the RPE Scale?

The RPE scale helps you evaluate your internal comfort zone, or how you feel during the exercise session such as sensations of breathing, exertion, and even discomfort so that exercise is both effective and safe. No matter the physical activity, your exercise intensity should be within a comfortable range so that your fitness routine can progress.

Why use the RPE Scale if Checking Heart Rate is Effective?

Although measuring heart rate is the most effective method for monitoring exercise intensity, accurately taking a pulse by hand, particularly during exercise, can be difficult to master. A smart watch or fitness band can more accurately read your heart rate without stopping the exercise, but these can be expensive. An easy way to estimate and monitor exercise intensity either alone or in combination with your heart rate, is by using the RPE Scale.

How Do I use the RPE Scale?

The RPE is assessed upon a scale of 0 to 10 to rate the level of felt or perceived exertion. When using the RPE scale, it is important to remember that the rating of exertion is dependent on your bodily sensations or how you feel during the exercise.

What is the Recommended Intensity Range?

The recommended RPE range for most people is between 5 (moderate) and 8 (very hard). Your level of exertion should be both challenging to increase or progress your fitness, yet comfortable enough to maintain the duration of the exercise session.

The RPE Scale is beneficial because:

1. When comparing your RPE to your heart rate (pulse), it provides a reinforcing confirmation that you are exercising at an effective intensity.
2. Unlike taking your pulse, determining your RPE can be performed without stopping the exercise to check it which can maintain exercise momentum.
3. There is no equipment needed to accurately measure your RPE whereas wearable smart heart rate monitoring devices can be expensive.
4. Using the RPE scale can help you assess your fitness progression because your perception and tolerance of exercise intensity will change as you become more fit.
5. Using the RPE scale can help you avoid uncomfortable and discouraging exercise sessions, making exercise more effective and enjoyable so the duration and frequency of exercise sessions can be maintained.

My Maintenance Rate of Perceived Exertion Scale

Rating	Perceived Exertion	Breathing 'Talk Test'	Example Feelings/Thoughts	Example Activities
0	No Intensity	Normal, Comfortable Breathing/ Very Easy Conversation	<i>"I feel very comfortable"</i>	Resting, Sitting
1	Very Light	Normal, Comfortable Breathing/ Very Easy Conversation	<i>"I feel very comfortable and can easily maintain"</i>	Standing
2	Light	Comfortable Breathing / Very Easy Conversation	<i>"I feel comfortable and can easily maintain my exercise"</i>	Casual Walking
3	Light/Moderate	Comfortable Breathing/ Easy Conversation	<i>"I feel warmer but comfortable and can easily maintain my exercise"</i>	Walking
4	Very Moderate	Slightly Faster Breathing/ Easy Conversation	<i>"I feel a lot warmer but comfortable and can maintain my exercise"</i>	Brisk Walking
5	Moderate	Fast, Slightly Uncomfortable Breathing/Easy, Short Conversation	<i>"I feel warm, I am starting to sweat, I am slightly uncomfortable, but can maintain my exercise"</i>	Fast Walking
6	Moderate/Vigorous	Fast, Uncomfortable Breathing/ Short Sentence Conversation	<i>"I feel warmer, I am sweating and uncomfortable, but can maintain my exercise"</i>	Jogging
7	Vigorous	Rapid, Uncomfortable Breathing/ 1-2 Sentence Conversation	<i>"I feel hot, I am sweating more and uncomfortable, but can maintain my exercise for some time"</i>	Brisk Jogging
8	Very Vigorous	Rapid, Very Uncomfortable Breathing/1-2 Words at a Time	<i>"I feel hot, I am sweating and uncomfortable; I am not sure how long I can maintain my exercise"</i>	Running
9	Vigorous/Hard	Rapid, Very Uncomfortable Breathing/Difficulty Talking	<i>"I feel hot, I am sweating a lot and very uncomfortable; I cannot maintain my exercise for too long"</i>	Brisk Running
10	Extremely Hard	Rapid, Extremely Uncomfortable Breathing/Cannot Talk	<i>"I feel hot, I am sweating a lot and extremely uncomfortable; I cannot maintain my for more than a few minutes"</i>	Sprinting