

# THE ROAD TO HEALTH & WELLNESS



News and advice  
courtesy of  
**ELITE**  
PERSONAL  
TRAINING AND  
FITNESS SOLUTIONS

## In this issue

- Muscle Size and Strength
- Did You Know?
- Research Shows....
- Food For Thought
- EPT Recipes

### Muscle Size and Strength

During my initial evaluation with clients, I always ask what their goals are. Here are common responses:

- I want to be firmer.
- I want to be more muscular.
- I want to look better.
- I don't want to look so flabby.
- I want to be stronger.
- I want to be able to do more and function better without getting hurt.
- I want to fit into my clothes.
- I want to look younger.
- I want to look like I used to.



David Trumbore  
PT, DPT, CSCI, CWT, CPI, CFNP



These are all various ways of saying that you want more muscular size and strength. When a woman says she wants to look firmer or more toned, physiologically she is asking to lose body fat and to increase muscle mass. When a man says he wants to get “jacked”, he is asking for the same thing – albeit to a different degree. When individuals say they want to function better and not get hurt, they are again asking for the same thing – less body fat and more muscle!

Therefore, this month's health topic is devoted to answering basic questions about muscular size and strength.

Elite Personal Training and Fitness Solutions does not provide medical treatment or intervention. We acknowledge scientific evidence that appropriately intensive exercise and sustainable nutritional intervention can have significant impact on chronic health disorders and obesity, dramatically improving symptoms when recommendations are followed. Please visit us at [Eliteptf.com](http://Eliteptf.com) for more information and to schedule your evaluation.

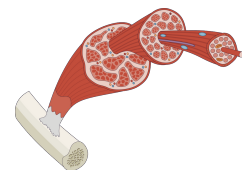
## What is muscle size and strength?

Muscle size refers to the actual mass of a muscle, while muscle strength refers to the ability of a muscle to produce force against external resistance.



## How does a muscle increase in size?

The process of a muscle becoming larger is called hypertrophy. This is the result of an increase in the size or number of muscle fibers within a muscle. This process occurs through muscle protein synthesis. For hypertrophy to occur, muscle protein synthesis must exceed muscle protein breakdown.



## How are muscle size and strength measured?

Muscle size can be accurately measured and differentiated from fat and other tissues through an MRI, CT scan or DEXA scan. Other methods are unreliable.



Muscle strength is assessed through isometric strength tests which involve producing a maximal force against an immovable resistance, one-repetition maximum test or higher repetition maximum tests based on an estimate 1RM.

## What type of exercise is best for promoting muscle size and strength?

Resistance exercise is the most effective means of increasing muscle size and strength. Lighter weights, higher repetitions and increased training volume are more for hypertrophy [increasing muscle size], while muscle strength is effectively built with lower training volumes and heavier weights.



Shorter rest intervals between sets can be employed for smaller single-joint muscles and exercises, while longer rest is needed for training larger muscles and compound movements.



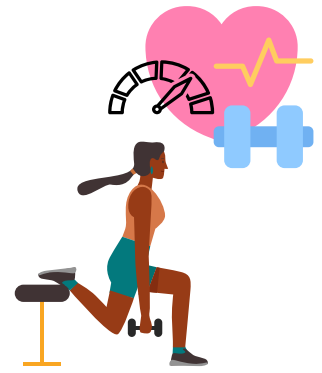
## Do I need to get sore after resistance exercise to build muscle?

Delayed onset muscle soreness [DOMS] is considered a marker of muscle damage which commonly occurs after unfamiliar or vigorous exercise. This typically happens initially while training but can occur when you change exercises or exercise type. This is normal and the muscular adaptations that result are part of the growing process.



## Do I need to train to muscular failure?

It was previously thought that training to muscular failure, otherwise known as momentary failure, was more effective to its maximum number of repetitions. Currently, there is conflicting research as to whether it is necessary. However, proper focus and significant intensity are always necessary for muscular adaptations.



## How many times a week should I train for the best results?

There is no specific answer that is right for everyone. An individual's goals, personal circumstances, level of commitment, age, and medical status are all contributing factors. In general, training three days a week is ideal. Training only once a week rarely has a significant impact.

S	M	T	W	T	F	S
	X		X		X	
	X		X		X	
	X		X		X	

## Should I train with a variety of exercises?

Yes. Evidence shows that muscles grow by being challenged in different planes and angles. This maximizes muscular gain and promotes maximal muscular development. The saying, "variety is the spice of life", is true when it comes to exercise. Furthermore, exercise variety helps avoid getting stuck in a training rut.



## Is using free weights better than using machines?

This is a tricky question to answer briefly since there are several complexities and nuances involved. On one hand, research shows that they produce equivalent changes in strength and muscle size. This is because pushing 100 pounds for 10 repetitions on a machine versus a barbell produces similar force and workload for the muscle.



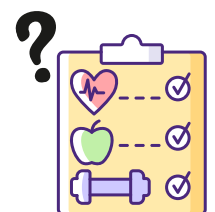
However, functionally and practically speaking, free weights offer many advantages. Machines have fixed dimensions so often short or tall people do not fit properly into the machine. Machines force you to work in a specific rigid plane, which can produce injuries. Exercise bands, dumbbells, kettle bells and bodyweight exercises allow for natural safer joint movement. Furthermore, free weights require balance and proprioceptive adjustments. This creates more neural adaptations which is highly desirable.



## Which exercises should be performed first in a workout?

It is impossible to answer this question specifically since everyone has different goals, physiological needs and structural differences.

Everything you've read to this point highlights the value of having a professionally prescribed training program.



## Is there a correlation between the size of a muscle and the strength of a muscle?

Most of a person's strength can be attributed to their muscle mass which is supported by the mechanistic rationale that a larger muscle has greater force-generating capacity. That's a fancy way of saying that a bigger muscle is a stronger muscle.



## How does diet affect muscle size and strength?

Nutrition plays a critical role in increasing muscle size and strength by fueling exercise, promoting recovery, and providing the materials to build muscle. These processes are mainly influenced by protein and carbohydrate intake. Intense exercise is demanding and necessitates increased nutrient intake, particularly protein. This is especially true for older individuals.



## What should I eat before and after training?

(See also our Fe. 25, 2024 article on nutrient timing)

The answer to this complex question depends on the individual. Again, this highlights the need for professional oversight to ensure safe and efficient training.



## Besides exercise and nutrition what other factors affect muscle size and strength?

Gains in muscle size and strength are influenced by a myriad of factors, including age, genetics, lifestyle [sleep, stress management] and training history.



## Can I train myself [create my own exercise program]?

Yes, you can, and many people do. But this is precisely why many people get injured, do not make progress and quit in frustration. Going to a gym, taking group classes and playing sports are different from being trained by professionals with expertise in anatomy, biomechanics, exercise science, neurophysiology and nutrition. Training yourself is a lot like doing your own taxes. You can do it, but it's not recommended – leave it to a professional.



## Summary

Exercise may seem simple, but it is quite complex. That is why individuals obtain degrees in exercise science, study for advanced certifications and require years of experience to become proficient.



Exercise should be prescribed, progressed and monitored after an appropriate musculoskeletal and medical evaluation. This is why EPT clients get great results. Let us train you safely and effectively.



## Did You Know...

March is National Noodle Month. According to the International Pasta Organization, there are more than 600 different shapes of pasta produced throughout the world. Mama mia. That's a lot of noodles. A Barilla World Pasta Survey found that Americans' three favorite pasta varieties, in order of preference, are spaghetti, penne and rotini.

Not all pastas are meant to be enjoyed with all sauces. Long, flat pasta such as fettuccine and linguine are best paired with creamy sauces, which cling better to that particular pasta shape. Thicker, chunkier tomato sauces go better with pasta that has a short, tubular or spiral shape, like rotini and fusilli.



## Research Shows

Research published in *Frontiers in Nutrition* analyzing the diets of adults and children who eat pasta has revealed good news about one of America's favorite foods. The research found that pasta consumption in both children and adults is associated with a better diet quality and better nutrient intake than that of those children and adults who do not eat pasta. Furthermore, when evaluating weight parameters, no associations were observed in male children and adults. However, adult women pasta-eaters showed a beneficial weight-related outcome. Pasta consumption in adult females was associated with reduced waist circumference, body weight and body mass index (BMI).



# Food For Thought: Spring Clean Your Eating

## Introduction

Ah, Spring. What a relief to see grass growing and buds blooming. Many of us choose springtime to tackle activities like washing windows and clearing clutter. That's great, but along with swapping out our wardrobe and cleaning out closets, let's apply some spring cleaning to our kitchens and food choices as well.



## Lighten Up and Brighten Up

Just as we discard extra clothing layers and simplify, going with brighter colors and lighter weight apparel, we can do with a food makeover as well. One way to lighten up and brighten is to Eat the Rainbow. This is one of EPT's mantras. Why is it so important?



Produce brings the flavor, the fiber, the fluid, the vitamins and minerals and the plant nutrients to put some pep in your step, pizzazz to your palate and health benefits in every bite.

## Spring Colors on Your Plate

- Orange carrots, citrus fruits, peaches, nectarines
- Yellow mango, pineapple, banana, lemons, grapefruit
- Green and dark green leafy vegetables, asparagus, avocado, kiwi, broccoli, bok choy, celery, cabbage, peas, limes, pears, leeks
- Purple beets
- Red strawberries, tomatoes, apples
- Blueberries
- White mushrooms, onions, parsnips, cauliflower, potatoes



## Healthy and Delicious Ways to Spruce Up Your Plate

### Texture

Flavor is one of the top drivers of food preference, but we tend to forget about texture. Food delivery has a huge impact on the flavor and desirability of foods. Just imagine if you had to drink all your meals or take them in pill form (like in the Jetsons cartoon). We would experience a huge drop in appetite. Why?



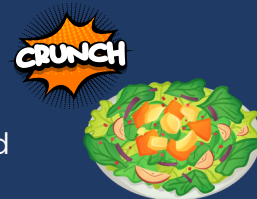
The act of chewing is not only beneficial for digestion. It also provides tactile enjoyment through various textures. Abundant research confirms that texture impacts flavor, and we all have our individual preferences when it comes to texture.



# Food For Thought: Spring Clean Your Eating

## Bring The Crunch

- Add chopped celery, bell peppers or shredded carrots to a tuna or egg salad
- Slice a pear or apple into a salad
- Try new textures in salads like raw grated beet, arugula and grapefruit or peach salad



## Explore Creamy Textures

- Use avocado to add richness to a broccoli bisque
- Try avocado instead of cream to add a delightful mouthfeel to a spring pasta
- Puree parsnips, potatoes, peas or leeks and add to soup



## Capitalize On Flavor

- Using citrus fruit juice and zest is a huge culinary secret. Try adding to any dish for a fresh pop of acidity.
  - Mix with greens and olive oil for a light, bright salad
  - Add after cooking your stir fry for extra pop
- Caramelization is king. Caramelization happens when you cook sugar in foods. Think searing a steak or sautéing onions and garlic or cooking fruits. This changes the flavor compounds in foods and provides more enjoyable flavors.
  - Add caramelized onions to a stir fry, dip or salad
- Combine the sweet/tart flavor of pineapple or mango into a salsa or a stir fry



## Look for Seasonal Spring Produce

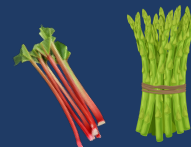
### March

As the March weather gets milder, you will find fresh greens like spinach, Swiss chard, and collard greens. Green beans, broccoli, radishes, and mushrooms are super fresh at this time of year, too. When shopping for fruit, look for strawberries, mangoes, and kiwi.



### April

The produce you find in March will still be seasonal in April, as will peas, asparagus, and rhubarb, once the weather warms up.



### May

During May, you'll begin to see summer gems like apricots, strawberries, zucchini, and okra.



# Food For Thought: Spring Clean Your Eating

## Look Locally

Connect with local farmers markets and shops. We enjoy exceptional food and informative updates from Dave's Backyard Farms, located just a few minutes from EPT!



## EPT Pro Tip:

Don't get overwhelmed. Don't launch a complete overhaul overnight. You don't have to make huge changes to your diet to see a positive impact. Every little bit helps. Be patient. Allow yourself to make small changes, one step at a time. Once one step sticks and becomes a habit, then add another. Just like an average person's spring cleaning takes time, so does spring cleaning your diet. Need help? Give us a call.



Food for Thought and Recipe contributed by Lynette Jernigan, Clinical Director of Nutrition Services and Director of Business Development at EPT.

# EPT RECIPES

## BUTTONS AND BOWS PASTA



### INGREDIENTS

- 2 cups (8 oz) whole wheat bowtie pasta
- 1 Tbsp olive oil
- 1 tsp garlic, minced
- 1 bag (16 oz) peas and carrots, frozen
- 2 cups (16 oz) chicken broth, low-sodium
- 2 Tbsp cornstarch
- 1 Tbsp fresh parsley, rinsed and chopped
- 1 tsp lemon zest
- ¼ tsp ground black pepper



### DIRECTIONS

*Recipe courtesy of Keep the Beat™, National Heart, Lung, and Blood Institute*

1. In a 4-quart saucepan, bring 3 quarts of water to a boil over high heat.
2. Add pasta and cook according to package directions. Drain.
3. Meanwhile, heat olive oil and garlic over medium heat in large sauté pan. Cook until soft, but not browned.
4. Add peas and carrots. Cook gently until the vegetables are heated through.
5. In a bowl, combine chicken broth and cornstarch, mix well.
6. Add to pan with vegetables and bring to a boil. Simmer gently for 1 minute.
7. Add parsley, pasta, lemon zest, and pepper. Toss gently and cook until the pasta is hot.
8. Serve.

### EPT PRO TIPS & FUN FACTS

- This dish is a great starter for creativity!
- Try in-season veggies or other fresh herbs.
- Turn up the flavor with grated parmesan cheese.
- For a thinner sauce you can utilize reserved pasta water instead of corn starch.

