

Happy New Year 2011!

South Denver Heart Center

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Physical Activity



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"What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?"

Start Moving



Join a Gym

- SDCA Gym memberships:
 - 3, 6, or 12 months
 - SilverSneakers
 - Medical fitness facility includes:
 - One-on-one program design
 - Unlimited use (5 days/week)
 - Supervised at all times
 - Unlimited group classes: Tai Chi, Muscle Strength, Yoga, Zumba Gold, Balance, Yoga of the Heart

Getting Started

- Identify your exercise goals?
 - Health
 - Fitness
 - Performance




Exercise for Health



- Cardiovascular: accumulate 30 minutes of activity 4-6 times/week
- Strength: include "weight-bearing activity at least 4 times/week"
- Flexibility/Stress Reduction: Daily (5-10 minutes minimum)

Exercise for Fitness




Cardiovascular: continuous exercise using large muscle groups for 30-60 minutes, 3-5 times/week

Strength: balanced body work for 8-10 essential muscle groups, 1-3 sets, 2 or 3 times/week

Flexibility/Stress Reduction: minimum of 1 stretch per muscle group used, hold 30-60 seconds Daily; add active stretching (i.e. yoga)

Performance Exercise

- Cardiovascular:** competition and/or interval training
- Strength:** muscle endurance or power training using ascending or descending pyramid sequence
- Flexibility/stress reduction:** daily muscle group stretching; add mind/body activities for whole-body stretching



Aerobic vs. Anaerobic Exercise


AEROBIC	ANAEROBIC
*with oxygen	*without oxygen
*continuous	*short bouts (<3 min)
*moderate intensity (60-85% max HR)	*high intensity (>85% max HR)
*fuel: glucose, protein, fats	*fuel: glucose/glycogen

Strength Training Versus Aerobic Exercise


- Both are important to successful fat loss
 - Differences lie in the amount of calories burned when not exercising
 - Aerobic workout: ~300 cal/hour at moderate intensity and RMR remains elevated up to a few hours after exercise
 - Strength training: consistent workouts elevate the RMR permanently

Importance of Strength Training

- Starting in the late 30s or early 40s, most people lose about 1/4 # muscle every year
- By age 80, loss is ~1/3 of muscle mass



Why Does Muscle Matter?



- Muscle is the cornerstone for health, vitality and independence as we grow older
- It keeps us strong and mobile
- It tugs on our bones to help bone stay strong
- It burns more calories than fat: muscle and lean body mass are the metabolic engine in your body
- More muscle means your metabolic rate goes up, which makes it easier to stay trim
- Muscle is where most of our blood sugar (glucose) goes

Muscle and Its Role in Blood Sugar

- Building more muscle means lower blood sugar
- The cells in inactive muscles become resistant to the insulin that the pancreas secretes = higher risk of heart disease and diabetes



Muscle Strength & Diabetes

Tufts College study:

- 62 older men and women with diabetes:
 - Exercised 16 weeks, 2x/week
- RESULTS: stronger, gained muscle, lost body fat, improved blood sugar control and lowered their blood pressure

Strength Training and Osteoporosis

- Strength training lowers the risk of osteoporosis
- Post-menopausal women typically lose 1% of bone mass per year, and even more during the first 5 years after menopause.



Strength Train or NOT?

Study of 40 healthy, sedentary, post-menopausal women for one year:

- ½ group kept same lifestyle
- ½ group lifted weights 2x/week

RESULTS:

- Sedentary: 2-3% bone density loss by end of year
- Strength-trained: 1% gain in bone density and 14% improvement in balance

Strength Training and the Mind

- Strength training:
 - Helps people gain confidence
 - Helps fight depression
 - Reduces sleep problems
 - Longer
 - Deeper
 - Fewer awakenings



Strength Training and Heart Disease

Recent Physicians Health Study:

- Men who lifted weights at least 30 minutes a week had a reduced risk of heart disease
- No information on women yet!



Strength Training and Back Pain



- Strengthening CORE muscles can reduce lower back pain
- Decreases abdominal weakness
- Stretching hamstring, quadricep, and other low back muscles reduces pain

Strength Training has NO AGE Barriers

- Even women in their 20s can benefit from increasing their peak bone mass
- By the 40s, women start to lose muscle and bone density
- You're going to feel like a younger person by exercising at ANY AGE



Prevent Muscle Soreness

- Warm up thoroughly
- When beginning, start gradually
- Start with light weights and high reps (12-20)
- Avoid sudden changes in type and amount of time you exercise
- Cool down completely
- Perform easy stretching exercise

2011 - The Year of Health



Nutrition Tips for Strength Training and Weight Loss

Susan Buckley, RD
Nutritionist
South Denver Cardiology



Why Do We "Diet?"

- We want a quick fix
- We focus on the short-term and fail to see the big picture
- We want to believe the new diet program is "The One"
- We don't know any better!

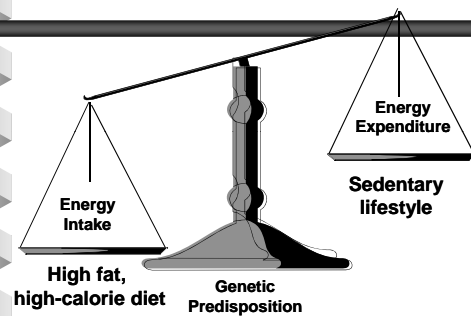
Do Diets Work?

- Depends on the desired outcome
- Do you want to lose weight?
- Or do you want to lose weight AND KEEP IT OFF?

What's Out There

- 36,104 entries in Amazon's online database for "weight loss"
- 5,867 listings for "weight loss" in Barnes and Noble's online database

Etiology of Overweight/Obesity



National Weight Control Registry

- Over 5,000 people
- Minimum of 30 pounds for at least a year
- Average weight lost is 70 pounds
- Average time weight has been off is 6 years

NWCR

- Self-monitor weight, food intake, physical activity
- Diet is lower in fat and calories
- Very FEW on low carbohydrate alone
- Physical activity almost every day – average accumulate 45-60 minutes daily
- EAT BREAKFAST!
- Consistent!

NWCR

- Eat regular meals at regular times, including breakfast
- On average, eat 5 times per day
- On average eat less than 2 meals per week at a restaurant
- Continue long-term to monitor their food intake in some way but do NOT feel deprived or feel like they are "dieting."

Eat More (Often) Weigh Less!



• The Best Option:

Small meals throughout the day!

- Eating smaller meals more frequently will allow the metabolism of the body to constantly be active without stressing it, causing an increase in the resting metabolic rate as well as a more efficient digestive system

New Year New You!

- In order to build muscle, lose fat and become healthier –
- You don't need special "diet food," obscure exercises or just that right outfit.
- You DO need an eating and exercise program *you can live with!*

How many calories do I need?

- Based on height, weight, sex, activity level, age
- Different for everyone
- www.caloriesperhour.com
- Most people don't know how many calories they need to eat in order to lose weight!

Protein



- Essential to growth and repair of muscle and other body tissues
- Makes enzymes, hormones
- Makes muscles contract
- Helps regulate body processes such as water balance
- Takes longer to digest - helps you feel fuller longer

Protein



- Minimum protein requirements are higher during calorie restriction
- DON'T want the body to break down muscle to supply energy when calories are restricted – will lower resting metabolic rate



Protein

- Overeating protein does NOT offer added benefits beyond what is required
- Does NOT build more muscle
- Excess protein isn't stored in body for future use as protein
- Stored as FAT



Protein

- Get some protein at every meal
- Breakfast: Greek yogurt, cottage cheese, eggs or egg betters, protein shakes

Protein Requirements for Reduced Calories

Calories	25%	30%	35%
1200	75g	90g	105g
1400	87g	105g	122g
1600	100g	120g	140g
1800	112g	135g	157g

- Set the PRO allotment first, then consider the allotment of CHO and FAT to accompany it

Fat 25-30% of Calories

- 1200 calories 33-40 g total fat
- 1500 calories 42-50 g total fat
- 1800 calories 50-60 g total fat
- A Chipotle vegetarian burrito with rice/beans/guacamole/sour cream has 985 calories and 42 grams of fat

Carbohydrate Intake

- Approximately 40% of calories

Calories	Carbs
1200	120g
1500	150g
1800	180g



What Works

- 80% of Americans who report "trying" to lose weight are employing strategies that will not lead to weight loss
- Cutting fat, but not calories
- Cutting carbs, but not calories
- Exercising but not watching calories
- Energy intake, as well as energy composition determines weight loss

Food Diary

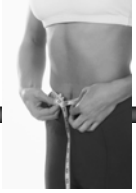


- www.calorieking.com
- www.sparkpeople.com
- www.fitday.com
- iPhone apps
- Good old pen and paper



People who keep food logs are TWICE as successful at weight loss as people who DON'T!

Weight Loss



- Reduce energy intake:
- 500 calories per day to lose 1 pound per week
- 1,000 calories per day to lose two pounds per week
- Exercise 250 to 500 calories/day
- Eat 250 to 500 less calories/day

Diet Composition



- Protein more satiating than either carbohydrates and fat
- Exception liquids – don't drink calories!
- Carbohydrates – body's preferred source of energy!
- Fat helps you stay more satisfied over the long run

Planning Ahead

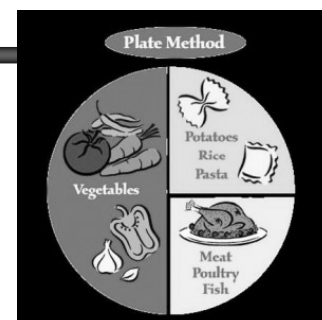


Prepare meals ahead of time to avoid binging or splurging on unhealthy meals or snacks

- Pack lunches one day ahead, with snacks included, so they are ready even if you're not
- Shop for meals a week ahead of time so you are ready to make them at a moment's notice

Eat More Often – Weigh Less!

- Eat a snack/mini-meal every 4 hours
- Keeps blood sugar steady
- Controls overeating
- Protein, low-GI carb, small amount of healthy fat, fiber
- Yogurt or cottage cheese, blueberries, high-fiber whole wheat toast, peanut butter
- Chicken or fish, veggies, black beans, oil and vinegar dressing





Timing

- If you work out on your lunch hour or after work, refuel about two hours before you hit the gym
- Focus on complex carbs and protein
- Good choices: whole grain bread and peanut butter, fruit and yogurt, cereal and milk, 200 calorie protein bar, yogurt with nuts or fruit with nuts



Timing

- Minimize the number of muscle proteins that must be broken down to supply energy by beginning your workout with more glycogen stored in your muscles
- Pre-workout protein consumption can further decrease the body's reliance on muscle proteins for energy during exercise

Hydration



- Don't forget the water!
- Water helps weight loss
- Drink at least 8 glasses/day
- Energy bars and sports drinks are not necessary for exercise lasting less than 1 hour!

Smart water



- Virginia Polytechnic Institute
- The researchers studied 48 adults ages 55 to 75
- All of the subjects were asked to consume a low-calorie diet for 12 weeks, but half also drank two 8-ounce cups of water just before each meal.
- After 12 weeks, those who drank the water lost about 15 1/2 pounds, compared to only 11 pounds for those who did not drink the water,

"Sports" Drinks

- Glaceau Vitaminwater - 20 oz
125 calories 33 grams sugar
- Powerade - 20 oz
175 calories 38 grams sugar

A Coke/Pepsi has 150 calories in a can and 40 grams sugar



Post workout fueling

- Your muscles are primed to store carbohydrates, and ready to be repaired with a little protein.
- Good options: turkey sandwich on whole grain bread and fruit, hummus on whole wheat pita with vegetables and fruit salad, Greek yogurt with fruit and nuts

Summary

- Eat a low-fat, high-fiber diet
- Eat breakfast every day
- Monitor progress
- Get high levels of physical activity
- Be as active as you can!
- Eat 5 times a day
- Skipping meals is NOT a good way to lose weight!
- Burn an average of 2,800 calories/week; 400 calories/day
- Limit intake of processed foods

Recommended Books

- Volumetrics Eating Plan
Barbara Rolls
- Mindless Eating
Brian Wansink
- The Beck Diet Solution (Cognitive Behavioral Therapy)
Judith Beck
- Books by Geneen Roth - Emotional eating

Food Logs

- www.fitday.com
- www.nutritiondata.com
- www.caloriesperhour.com
- www.calorieking.com
- www.sparkpeople.com

Restaurants:

www.dwlz.com/restaurants



Questions to Ask Yourself

- How do I measure my current level of fitness?
- How can I improve, while decreasing my risk for stroke, heart disease and diabetes?
- How can I design a food plan that fits my lifestyle?

Answers

- Join the Medical Fitness Facility
- Exercise consultation/prescription
- Nutritional consultation