Fit, Well and Working

Council on Women's Concerns

Penny Dalton Hite

April 10, 2013


Environmental
Intellectual
Emotional
Physical
Social
Spiritual
Occupational
Elements of
Wellness

1. Emotional Wellness

Components

- Striving to meet emotional needs constructively
- Responding resiliently to emotional states and the flow of life events
- Ability to control stress and to express emotions appropriately and comfortably

Ideas for Improvement

- Counseling services
- EAP
- Yoga
- Meditation

2. Social Wellness

Components

- Ability to interact successfully with people and environment
- Encouraging effective communication, mutual respect, and seeking positive interdependent relationships with others
- Recognizing the need for leisure and recreation and budgeting time for those activities

Ideas for Improvement

- Rockefeller center
- Mentoring
- Brown Bag Luncheons
- Community Service Programs
- Happy Hour?

3. Intellectual Wellness

Components

- Ability to learn and use information effectively for personal, family, and career development
- Having a curiosity and strong desire to learn
- Staying stimulated with new ideas and sharing

Ideas for Improvement

- UUP waivers.
- B-140 waivers
- Professional development seminars
- Conferences
- Seminars

4. Environmental

Components

- Maximize harmony with the Earth
- Minimize harm to the environment
  - Reduce
  - Reuse
  - Recycle

Ideas for Improvement

- Participate
- Campus Lodge

5. Spiritual

Components

- Provides meaning and direction in life which enables you to grow, learn, and meet new challenges
- Determining/exploring morals, values and ethics
  - Self-determined, not always religion-based
  - Seeking feelings of love, hope, abundance

Ideas for Improvement

- Faith based organizations
- Meditation

6. Physical Wellness

Components

- Respecting and caring for your body
- Making healthy and positive choices regarding issues affecting your physical well-being
  - Fitness
  - Nutrition and weight control
  - Healthy lifestyle habits
  - Health screenings (CHOL, Mammograms, annuals, checkups, self examinations, sun exposure)
  - physical activity
  - Sexuality
  - Sleep
  - use of alcohol and other drugs

Ideas for Improvement

- Exercise!
- Clinics
- EAP
- Wellness Fair
- **More to come!**

7. Occupational Wellness

Components

- Gaining personal satisfaction and finding enrichment in life through work
- Contribution of unique gifts, skills and talents to work that is personally meaningful and rewarding
- When job satisfaction, career ambitions, and personal performance are all important

Ideas for Improvement…

Spiritual

Prayer for a Working Women

Oh Higher Being….

Give me the strength to render an honest day's work for the wages I receive;

Guide me to greatness as I type, file, write, teach, clean, create, and inspire my students;

Give me patience to tolerate and treat fairly all those around me;

Help me find a balance between home life and working;

But most importantly Higher being…

Spirituality

please don't let my ass get as wide as the chair I sit upon!

Maintaining Physical Wellness in the Work Setting

Television viewing time and reduced life expectancy: a life table analysis

Veerman, et al., 2011

- Equates to sitting (**screening**) in the workplace
- Every single hour of TV viewed after the age of 25 reduces the viewer's life expectancy by 21.8 min.
- Someone who spends a lifetime average of 6 h/day watching TV can expect to live 4.8 years less than a person who does not
- Rivals Smoking stats

Basics

- 3500 calories = 1 pound of fat
- 10 minutes of VI exercise = approx. 100cal burned
- Tolerable Weight-Health Fitness Standard
  - 20% BF Males
  - 25% BF Women
- Obese=30BMI
- Overweight=25BMI

TABLE 2.12

Recommended Body Composition According to Percent Body Fat

Age	Males	Females
≤29	12–20%	17–25%
30–49	13–21%	18–26%
≥50	14–22%	19–27%

High physical fitness standard

Health fitness or criterion referenced standard

ACSM Cardio Guidelines

- **Mode**: MI or VI aerobic activity
- **Intensity:** 30%-80% HRR based on age, status, fitness level, tolerance, goals
- **Duration:** at least 20 mins-VI (**HR** 120-154bpm)
  30 mins MI (**HR** 100-120bpm)
- **Frequency:** 3-5 days/wk VI/75mins/wk

OR

5days/wkMI/150mins/wk

How can we get to these benchmarks?

Regular exercise….boost at work?

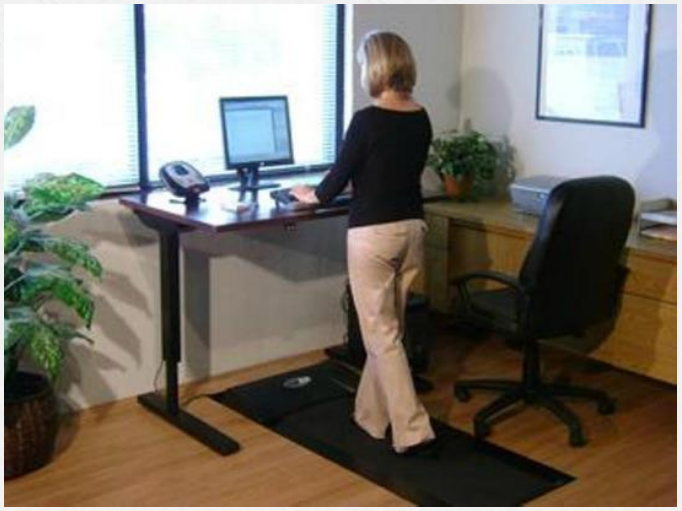
Park and ~~Ride~~ Walk

- Wear the Right Shoes and Socks/Walking Clothes
- Carrying Your Stuff
- Be Prepared for Bad Weather

- Walking or biking to and from school may result in a 2 to 3 pound weight loss per year (Tudor-Locke, Ainsworth, Adair, and Popkin (2003))
- 22% ↓in obesity if every teen walked or biked to school at least 4 days a week. Drake et al. (2012)

Moving Work Stations

- Work Stations
- Move every hour
- Walk, walk and then walk again



Pedal Exercise Machine

(*Occupational Health*, 2011)

- Age-40, female and overweight
- Requirements: Spent at least ¾ of the work day sitting at a desk or workstation
- Average Use During Study:
  - 12 out of a possible 20 work/d
  - 23 minutes each of those days
  - Ranging from 1 to 73 minutes
  - Distances covered/day 1/3-13.5m
- 9 to 500 calories burned
- Post-survey questionnaire
  - Easy to use
  - All would use such a machine regularly at work if offered one by their employer

Walking Meeting

1. Physical activity energizes people -more alert

2. Different environments
   - inspire new ideas
   - stimulate creativity.

3. Outdoors-improves physical and mental wellness

4. Walking and talking side by side
   - cuts through hierarchical work distinctions
   - puts people at ease

5. Walking burns calories, stimulates oxygen flow
   - ↑ brain function
   - ↑ ability to solve problems faster

Walk the memo

- Get off the computer
- Step outside
- Meet the colleague on the other side of the email (Social wellness)

Change your Desk habits

Replace Chair with Physioball

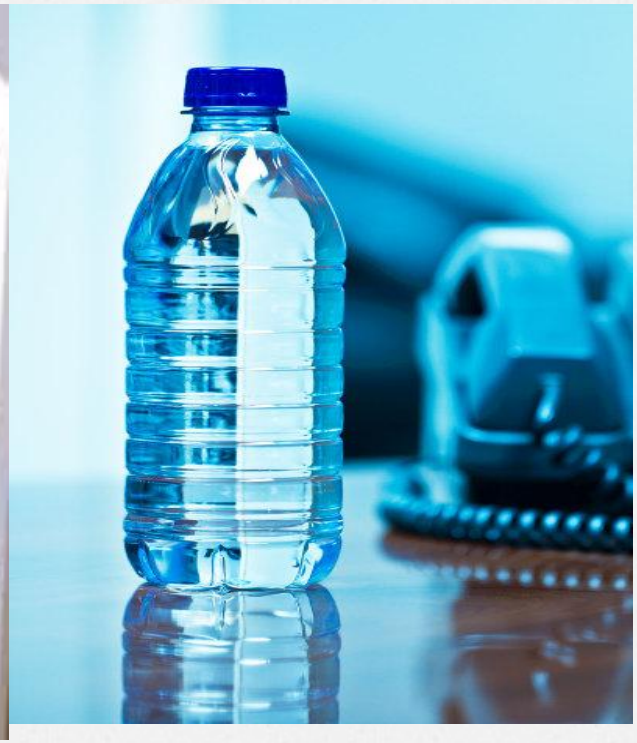
May Result in:

- Forced proper spine alignment
- Frequently changing positions
- Improved balance
- Improved circulation
- Core workout
- Burning up to 350 calories per day?

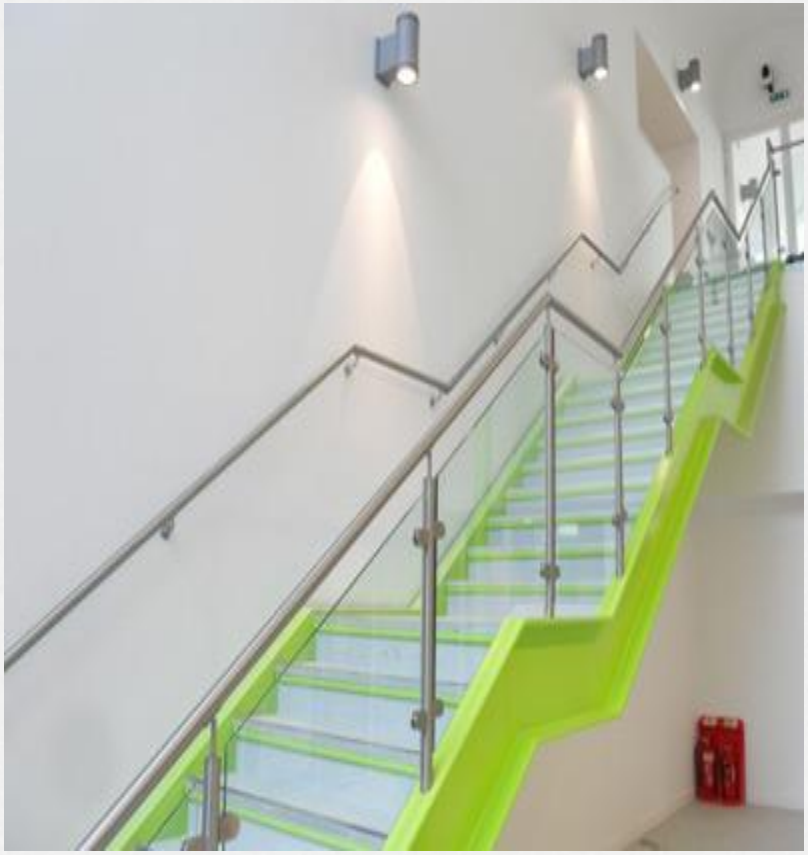
Repeatedly Stand and Sit

- Strengthens the leg's largest muscle(Quadriceps)
- Quad strength is a predictor for independence and good health as we age
- Increases your chances of living well and long
- Try for 3 sets of 10reps 3/wk

Don’t eat at your desk
Keep water on your desk



Take the Stairs



- Progressively increased from 1 ascent a day in week 1 to 5 ascents a day in weeks 7 and 8
- 5days a week (199 steps)
- Stepping rate of 90/minute
- Rise in HDL CHOL
- VO_2 and HR during the stair-climbing test ↓
- Blood lactate↓

(Boreham, et al., 2000)

Frequent the Fitness Center

- Cardio
- Strength

HOURS OF OPERATION

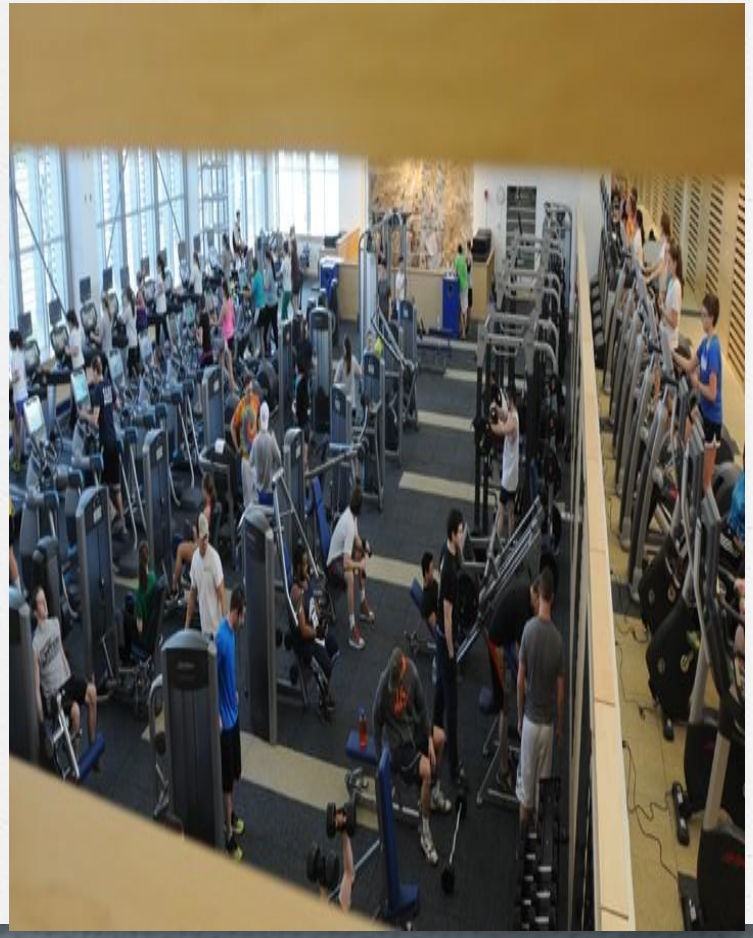
Monday through Friday

7 a.m. to 10 p.m.

Saturday

10 a.m. to 7 p.m.

Sunday, noon to 9 p.m.



Strength Training ↑ Metabolism How Great is That???

- One Pound of muscle will ↑ your ability to burn calories by 6-40cal/day
- (think fat = inert) (think muscle = machine)
- Example:
- 200# person @25% BF (150# LBW, 50#FBW)
  - 8 week strength and cardio program
  - NOW 200# but 20% BF (160# LBW, 40#FBW)
    - Total BW =
    - LBW has ↑ by 10 #
    - FBW has ↓by 10#
  - 10#(6-40 cal) = increase of 60-400 cal/day expenditure (think machine!)
  - Result is ↑ 12K calories/month (reduction or eat)

There is NO Magic Pill!

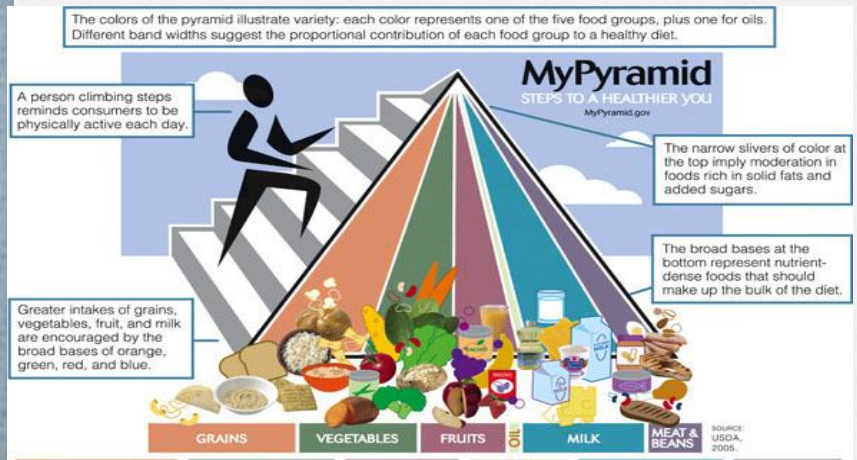
- It takes commitment and effort
- Good decisions

Successful Exercise Traits

- Selfish-Make time for yourself
- Buddy v no-buddy (Lewis and Sutton, 2011)
  - Self-determination concerning health and leisure
  - Behavior based on self-imposed interest and values
  - Must meet basic psychological needs
  - Not related to relationships
- Carve out specific time of day (if possible)

MyPyramid (USDA, 2011)

Activity, Variety, Proportionality and Moderation (MVP)



GRAINS
In general: 1 slice of bread, 1 cup of ready-to-eat cereal, ½ cup of cooked rice, cooked pasta, or cooked cereal can be considered as 1 oz equivalent of grains. Look for "whole" before the grain name on the list of ingredients and make at least half your grains whole.

VEGETABLES
In general: 1 cup of raw or cooked vegetables or vegetable juice, or 2 cups of raw leafy greens can be considered as 1 cup from the vegetable group. Try to eat more dark green and orange veggies, as well as dry beans and peas.

FRUITS
In general: 1 cup of fruit or 100% fruit juice, or ½ cup of dried fruit can be considered as 1 cup from the fruit group. Eat a variety of fruit, including fresh, frozen, canned, or dried fruit. Go easy on fruit juices.

OILS
Measured in teaspoons of either oils or solid fats. Most sources should come from fish, nuts, and vegetable oils. Limit solid fats such as butter, stick margarine, shortening, and lard.

MILK
In general: 1 cup of milk or yogurt, 1½ oz of natural cheese, or 2 oz of processed cheese can be considered as 1 cup from the milk group. Go low-fat or fat free. If you can't consume milk, choose lactose-free products or other calcium sources.

MEATS & BEANS
In general: 1 oz of meat, poultry, or fish, ¼ cup cooked dry beans, 1 egg, 1 tbsp of peanut butter, or ½ oz of nuts or seeds can be considered as 1 oz equivalent from the Meats & Beans group.

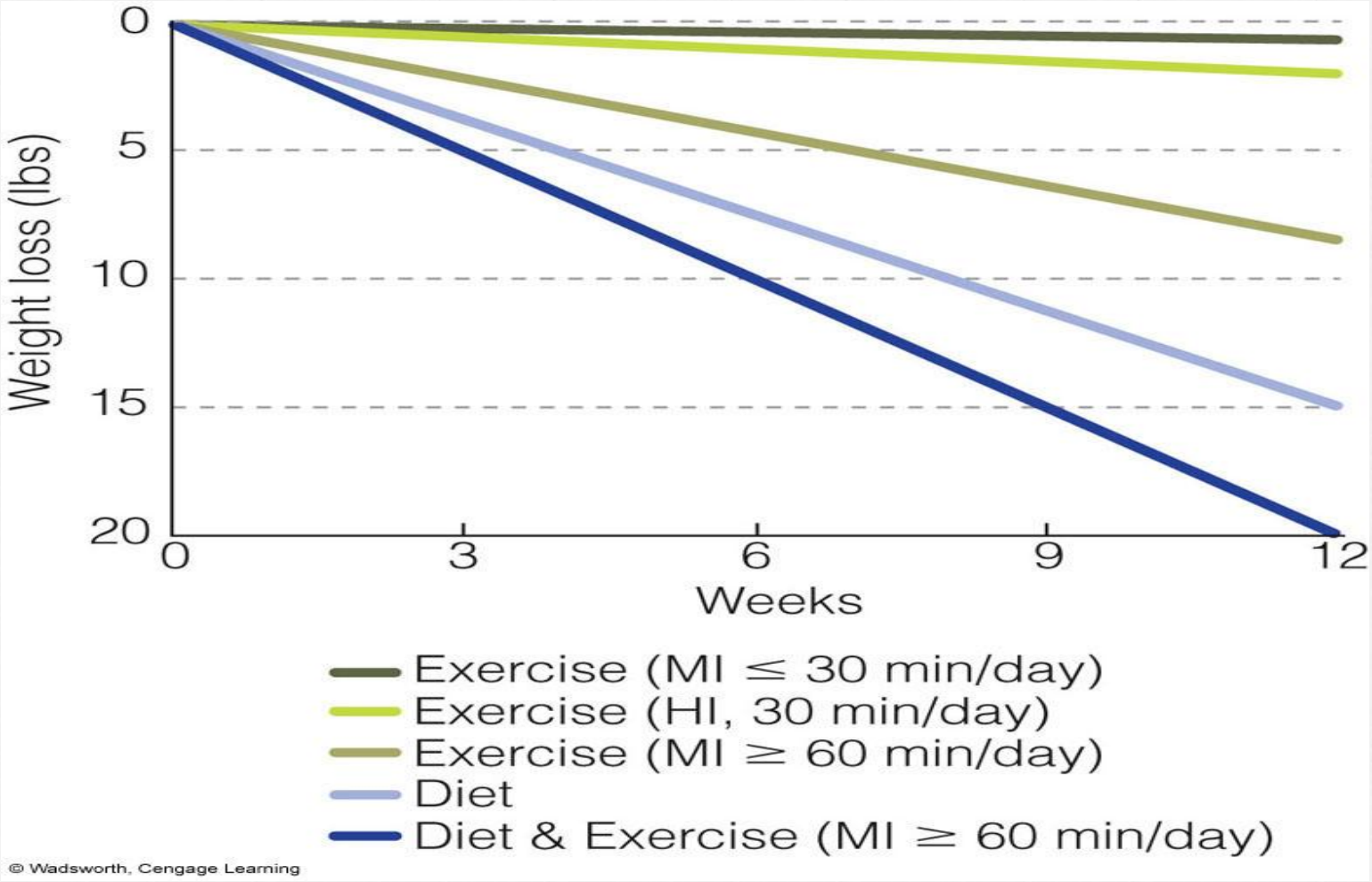
Recommended Daily Amounts from Each Food Group

FOOD GROUP	1600 cal	1800 cal	2000 cal	2200 cal	2400 cal	2600 cal	2800 cal	3000 cal
Fruits	1½ c	1½ c	2 c	2 c	2 c	2 c	2½ c	2½ c
Vegetables	2 c	2½ c	2½ c	3 c	3 c	3½ c	3½ c	4 c
Grains	5 oz	6 oz	6 oz	7 oz	8 oz	9 oz	10 oz	10 oz
Meat and legumes	5 oz	5 oz	5½ oz	6 oz	6½ oz	6½ oz	7 oz	7 oz
Milk	3 c	3 c	3 c	3 c	3 c	3 c	3 c	3 c
Oils	5 tsp	5 tsp	6 tsp	6 tsp	7 tsp	8 tsp	8 tsp	10 tsp
Discretionary calorie allowance	132 cal	195 cal	267 cal	290 cal	362 cal	410 cal	426 cal	512 cal

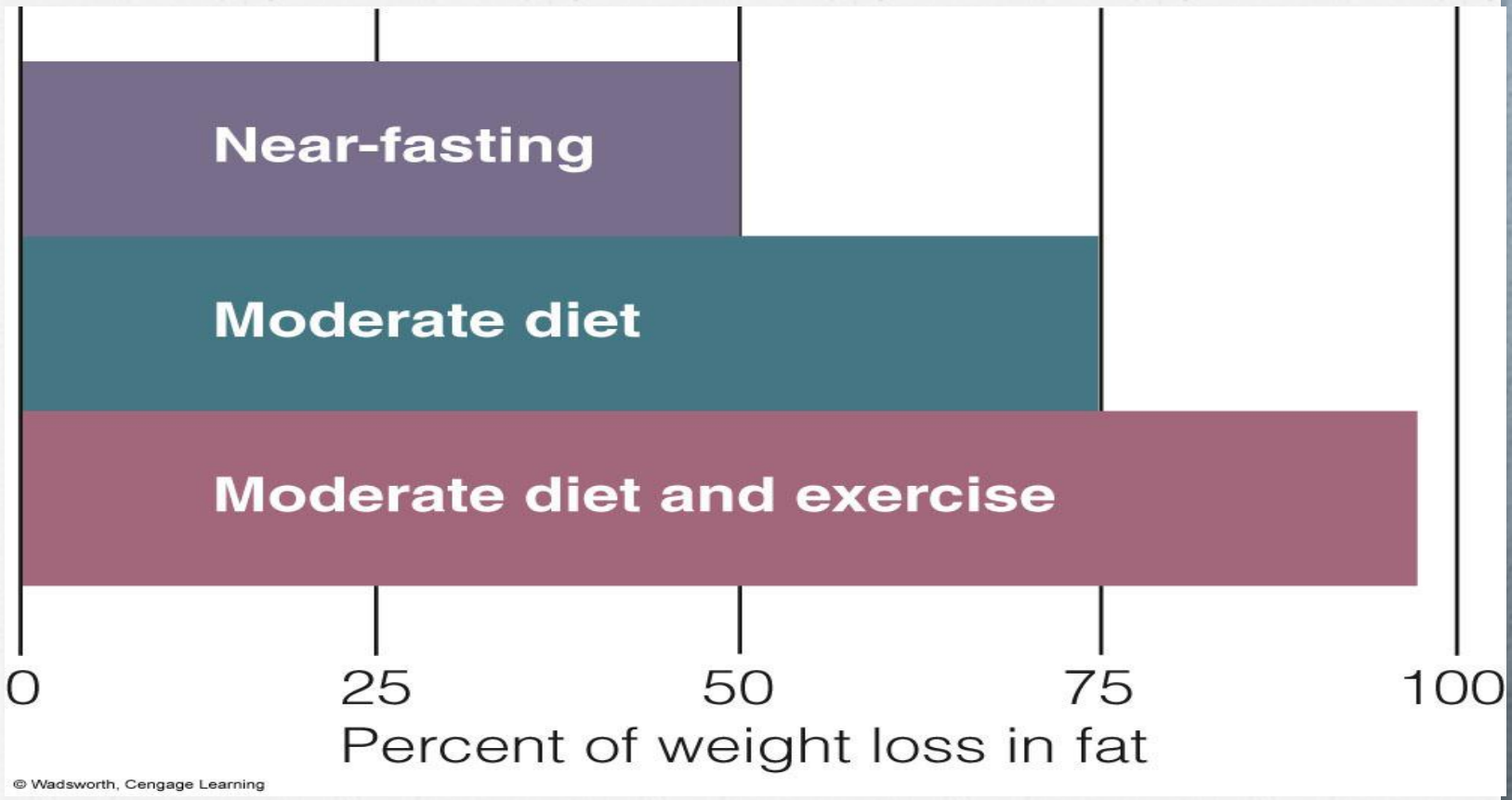
*Discretionary calorie allowance: At each calorie level, people who consistently choose calorie-dense foods may be able to meet their nutrient needs without consuming their full allotment of calories. The difference between the calories needed to supply nutrients and those needed for energy is known as the *discretionary calorie allowance*.

- **Activity**-Climber
- **Moderation**-avoid excess salt, sugars, alcohol &fats
- **Variety**-6 categories
- **Proportionality**-more of some and less of others
- MVP!!!!

The Roles of Diet and Exercise in Weight Loss



Effects of Three Forms of Diet on Fat Loss



Recommended Body Weight According to Percent Body Fat

- A. Current Body Weight (BW): _____ lbs
- B. Current Percent Body Fat (%BF)_____%
- C. Fat Weight (FW) = BW x %BF _____ x _____ = _____lbs
- D. Lean Body Mass (LBM) = BW – FW = _____ - _____ = _____ lbs
- E. Age: _____years
- F. Recommended Fat Percentage (RFP) Range (See Table 2.12 page 51)

  Low End of Recommended Fat Percent Range (LRFP): _____%
  (Physical Fitness Standard)
  High End of Recommended Fat Percent Range (HRFP): _____%
  (Health Fitness Standard)

TABLE 2.12

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  (Physical Fitness Standard)
  High End of Recommended Fat Percent Range (HRFP): _____%
  (Health Fitness Standard)

- G. Recommended Body Weight Range:

  Low End of Recommended Body Weight Range
  (LRBW): = LBM ÷ (1.0 – LRFP)

- LRBW = _____ ÷ (1.0 – _____) = _____lbs

  High End of Recommended Body Weight Range
  (HRBW): = LBM ÷ (1.0 – HRFP)

- HRBW = _____ ÷ (1.0 – _____) = _____lbs

- **Recommended Body Weight Range: _____to _____lbs**

Daily Caloric Requirement Computation Form

- A. Current Body Weight

  _____(A)

- B. Computation of EER (Estimated Energy Requirement)

  Women EER = 354-(6.91 X Age) + (9.36 X BW) + (726 X HT)
  Men EER = 662- (9.53 X Age) + (15.91 X BW) + (539 X HT)

  Conversion of HT (inches) to HT (meters)= (inches X .0254)

  - _____ X .0254=_____**(HT in meters)**
    (HT in inches)

  Conversion of BW from (pounds) to BW (kilograms)= BW (lbs)/2.2046

  _____/ 2.2046=_____(**BW in kilograms)**
  (BW in pounds)

  Women

  EER= 354-(6.91 X _____) + (9.36 X _____) + (726 X _____)
  (Age) (BW-kg) (HT-m)
  =_____**(EER)**

  Men

  EER= 662- (9.53 X _____) + (15.91 X _____) + (539 X _____)
  (Age (BW-kg) (HT-m)
  =_____**(EER)**

C. (EER) Energy requirement to maintain body weight without exercise

_____(C)

(From computation in B)

D. Selected physical activity (i.e. jogging)

_____

E. Number of exercise sessions per week

_____(E)

F. Duration of exercise session

_____(F)

G. Total weekly exercise time in minutes (E X F)

_____(G)

H. Average daily exercise time in minutes (G/7)

_____(H)

I. Caloric expenditure per pound/min (cal/lb/min) of physical activity

_____(I)

(Use table 6.2, page 160)

J. Total Calories burned per minute of exercise (A X I)

_____(J)

K. Average daily calories burned as a result of exercise program (H X J)

_____(K)

- L. Total daily caloric requirement with exercise to maintain BW (C + K)
  _____(L)

- M. Number of calories to subtract from daily requirement to achieve a negative caloric balance (multiply current BW by 5)
  _____(M)

- **N. Target caloric intake to lose weight (L-M) _____Calories****

Fitness Trackers

- Myfitnesspal.com
- Livestrong
- Special K Challenge
- Dine Healthy
- Fitclick
- Fooducate
- *Nutritiondata.self.com*
- *Fitday*
- *Choosemyplate.gov*
- *Healthehuman.com*
- *Sparkpeople.com*

Caloric Expenditure of Selected Physical Activities

TABLE 6.2

Caloric Expenditure of Selected Physical Activities

Activity*	Cal/lb/min	Activity*	Cal/lb/min	Activity*	Cal/lb/min
Aerobics		Gymnastics		Stationary Cycling	
Moderate	0.065	Light	0.030	Moderate	0.055
Vigorous	0.095	Heavy	0.056	Vigorous	0.070
Step Aerobics	0.070	Handball	0.064	Strength Training	0.050
Archery	0.030	Hiking	0.040	Swimming (crawl)	
Badminton		Judo/Karate	0.086	20 yds/min	0.031
Recreation	0.038	Racquetball	0.065	25 yds/min	0.040
Competition	0.065	Rope Jumping	0.060	45 yds/min	0.057
Baseball	0.031	Rowing (vigorous)	0.090	50 yds/min	0.070
Basketball		Running (on a level surface)		Table Tennis	0.030
Moderate	0.046	11.0 min/mile	0.070	Tennis	
Competition	0.063	8.5 min/mile	0.090	Moderate	0.045
Bowling	0.030	7.0 min/mile	0.102	Competition	0.064
Calisthenics	0.033	6.0 min/mile	0.114	Volleyball	0.030
Cycling (on a level surface)		Deep water**	0.100	Walking	
5.5 mph	0.033	Skating (moderate)	0.038	4.5 mph	0.045
10.0 mph	0.050	Skiing		Shallow pool	0.090
13.0 mph	0.071	Downhill	0.060	Water Aerobics	
Dance		Level (5 mph)	0.078	Moderate	0.050
Moderate	0.030	Soccer	0.059	Vigorous	0.070
Vigorous	0.055	Stairmaster		Wrestling	0.085
Golf	0.030	Moderate	0.070		
		Vigorous	0.090		

*Values are for actual time engaged in the activity.

** Treading water

And at Home…

Teach your Children Good Habits

- (Epstein, 1996)
  - if both parents are obese, the child has a 70% chance of developing obesity;
  - if only one parent is obese, the child has a 50% chance of becoming obese;
  - if neither parent is obese the child has only a 10% chance of becoming obese
- MVP!!! Forced eating and Restricted eating

(Birch & Fisher, 1995; Fisher & Birch, 1999; Johnson & Birch, 1994; Rhee, Lumeng, Appugliese, Kaciroti, & Bradley, 2006)

Encourage Active Pursuits

Restrict Screening activities

- Hours of TV/week positively associated with being at/above 85th OB (Delva, Johnston, & O'Malley, 2007)
- ↑ OB households in which the mother works full time (Powell, Chaloupka, & Bao, 2007)
- PA levels were ↓and TV viewing times ↑ in overweight compared to normal weight youth Andersen, Crespo, Bartlett, Cheskin, and Pratt (1998)

- 50% of African-American children born in the US in 2000 expected to develop diabetes in their lifetimes Narayan, Boyle, Thompson, Sorensen, and Williamson (2003)

- Create Family time around physical activities
- Use Supermarkets and not convenient stores
- Walk to school
- Insist on a healthy school

Take away message

- Do a good job for the university
- While taking care of yourself

How to eat nutritious food when junk is cheaper

- Cost of food research
  - Per calorie-junk food wins
  - Per nutrient-nutritious food wins
- Farmers markets
- Brown Bag it….give up on the $5 cappuccino lattes and going out for lunch
- Family garden (McAleese and Rankin, 2007)
  - Increase in fruit and veg intake, vit C and A
  - Increase attitudes toward fruits and vegs
  - Willingness to try new and preference for vegetables
- Buy local
  - U Pick
  - Exercise/family time
- Beans v meat (protein)
  - Meatless Monday?

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