Exercise Is Medicine: Let’s Pop A Pill!

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What if there was a little pill that could...

- Reduce your risk of heart disease by 40%?
- Lower your risk of stroke by 27%?
- Reduce the incidence of diabetes by almost 50%?
- Reduce the incidence of high blood pressure by almost 50%?
- Reduce mortality & risk of recurrent breast cancer by ~50%?
- Lower your risk of colon cancer by over 60%?
- Reduce your risk of developing Alzheimer’s disease by 33%?
- Decrease depression as effectively as Prozac or behavioral therapy?
Rx: Would you take it?

- **Actions:** Significant total body benefits
- **Cost:** Affordable
- **Interactions:** Positive
- **Dosage:** Minimum dose 30 min/day
- **Precautions:** Proper training & equipment
- **Side effects:** MINIMAL! : Risk of musculoskeletal injuries and cardiac events (very low)
Who says so?
...More Exercise Benefits to Women

- Maintain bone strength, decrease fall/fix risk
- Promote better sleep
- Maintain strength & independence
- Pelvic floor exercises decrease stress urinary incontinence and increase sexual satisfaction
- Prevent/reduce menopausal weight gain
HHS 2008 Physical Activity Guidelines for Americans (ages 18-64)

- **Aerobic Activities**: Choose *either* of the following
  - 2.5 hours/week of moderate intensity activity
  - 75 minutes/week of vigorous activity
- **Minimum aerobic bout**: 10 mins.
- **Strength Training**:
  - 2 days/week
  - Major muscle groups - 8-12 repetitions
HHS 2008 Physical Activity Guidelines for Americans (ages 18-64)

- Additional health benefits:
  - 5 hours of moderate intensity exercise or
  - 2.5 hours of vigorous intensity exercise

- Or combine intensities!

- Gradually increase duration and frequency.
Choose What Works for YOU

**Moderate**
- Ballroom/line dancing
- Biking on level ground/few hills
- Walking briskly
- Water aerobics
- “Catch and throw” sports
- Gardening
- Doubles Tennis

**Vigorous**
- Aerobics class
- Cycling > 10 mph
- Hiking uphill
- Race walking, jogging or running
- Swimming laps fast
- Sports with lots of running (ie. basketball, soccer)
- Singles tennis
Physical Activity Continuum: Forward progress counts!

Health Benefits

Very inactive, Inactive, Moderately Active, Very Active
Role of Low Energy Expenditure and Sitting in Obesity, Metabolic Syndrome, Type 2 Diabetes, and Cardiovascular Disease

Marc T. Hamilton,¹,² Deborah G. Hamilton,¹ and Theodore W. Zderic¹
All-Cause Mortality by Fitness Groups: 2,603 Adults 60+

Sui, M.  JAMA 2007, 298:2507-16
Insulin resistance → disease

Facchini et al. (2001), JCEM, 86:3574
Exercise ↑ Insulin Sensitivity

Acute exercise ↑ insulin sensitivity in obese individuals

Devlin & Horton (1985), *Diabetes*, 34:973
Different Approach – Less Screen Time!

Adults watch television 3-5 hrs/day


3,518 hours/yr watching tv, surfing the net, reading print & listening to personal music devices.

U.S. Census Bureau 2007

LIMIT TV SCREEN TIME: 2 hrs/day!
Move/Step During TV Commercials!

Step in place (100 steps/min), lifting each foot 6” off the floor.

Just MOVE more.

- Reduce sitting time. At work. At home.
- Wear comfy clothes/shoes that allow you to move.
- Walk when you can.
- Find beautiful spaces to move around in.
- Dance.
- Dance in water!
Choose to Move: Walking

- **10,000 Steps/Day:**
  Pedometer - Add 1,000 steps/day above baseline. Progress to 10,000 steps/day.

- AHA Start! program.
  startwalkingnow.org

- everybodywalk.org
American College of Sports Medicine  
Exercise and Energy Balance  

“Physical activity is one of the most important behavioral factors in weight maintenance and improving long-term weight loss outcomes. In fact, participation in an exercise program has proven to be the very best predictor of maintaining weight that was lost.”

ACSM Message Points 2009
National Weight Control Registry

Members have lost an average of 66 lbs and KEPT IT OFF FOR 5.5 YEARS!!!

How do they do it?

- 78% eat breakfast daily
- 75% weigh themselves weekly
- 62% watch less than 10 hrs of TV/wk.
- 90% exercise, on average, 1 hour/day (mostly walking)

NWCR Facts from studies reported on NWCR website 6/09.
Head to Toe Before You Go

Should you check with your doctor?

Not necessary for most people initiating light to moderate intensity activity.

YES if cardiac disease symptoms, risk factors, orthopedic limitations.

Body Inventory – Head to Toe for trouble spots
Physical Activity
3 Rules of Pain

If it hurts...

● Do it DIFFERENTLY.
● Do LESS of it.
● Do something else.

Or go see your doctor!
Anatomy of a Heart  Healthy Workout

- Warm-up: Easy pace cardiovascular activity 5-10 mins
- Cardio: Brisk pace. Mixed pace. 20-30 mins
- Cool-down: Easy pace 5-10 mins.
- Stretch.

*Strength exercises same day or 2 alternate days*
Interval Walking

- Mix brisk AND comfortable (easy) paces.
- Add 4-8 intervals after warm-up.
- Examples:
  - 1 lightpost fast/2 lightposts slow.
  - 1 block fast, 2 blocks slow.
  - 30 seconds fast/1 minute slow.
Women’s Feet

- Females: narrower heel in relation to forefoot
- Females tend to pronate more and have smaller achilles tendons.
- 88% of women wear shoes that are smaller in width than their feet!
Good Exercise Shoes: A Must!!!

- Index finger’s width between longest toe and the end of the shoe.
- Comfortable right out of box!
- Specialty shoe store. Shop at the end of the day.
- Wear sports sox. Synthetic fibers for wicking & blister prevention.
- Test shoe for adequate support...
Flexion Stability

YES!

NO!
Heel Stability

YES!

NO!
Torsional Stability

NO!
Sports Bra: Types

Encapsulation Style

Compression Style
Sports Bra Features

- Wide, supportive chest band
- Wide non-elastic shoulder straps
- More horizontal stretch than vertical stretch
- Smart seam placement – NOT over nipples
- Covered hooks or fasteners
- Ample armholes
- Wicking fabric
Sports Bra Resources

- titlenine.com
- athleta.gap.com
- lucy.com
- lululemon.com
- champion.com (also plus size)
- shopadidas.com (also plus size)

PLUS SIZE
- alwaysforme.com
- plussizeathleticwear.com
- plusathletic.com
- junonia.com
Exercise - Psychological Incentives

- Autonomy
- Arousal
- Esteem
- Competence
- Relatedness

...lead to enjoyment

Willis, J. & Frye Campbell, L. Exercise Psychology, 1992
Exercise IS Medicine: Let’s Get Moving!

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