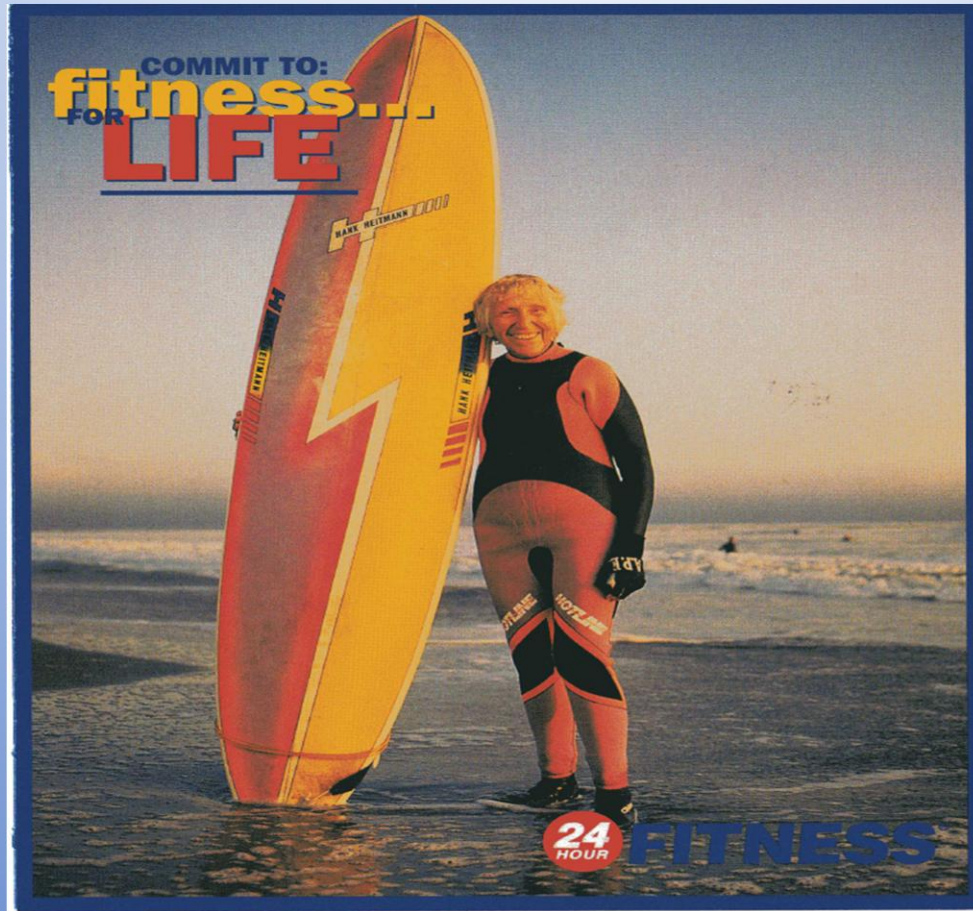
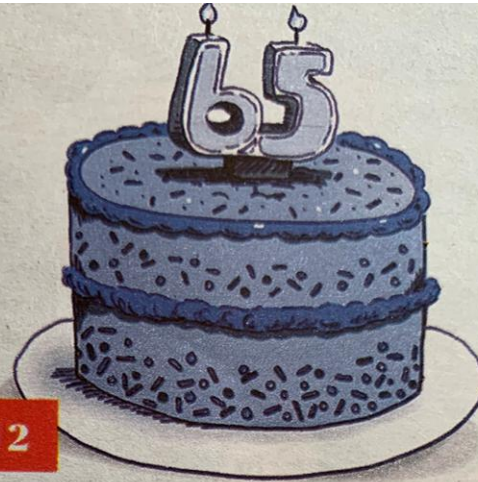


Grow Strong NOT old nor frail





LESSON 2

The Adage 'Age Is Just a Number' Has New Meaning

“Your health is directly related to lifestyle—nutrition, physical activity, a healthy weight and restorative sleep.”

—Jacob Mirsky, M.D., primary care physician at the Massachusetts General Hospital Revere HealthCare Center

WARNING

It has been determined that physical inactivity is
as hazardous to your health as smoking!

IF U REST U Rust !

Be fit 4 LIFE!

Sedentary Life style increases your risk of developing :

diabetes, cancer, heart disease, osteoporosis,
falling, memory, loss, losing functional skills, and
developing memory / cognitive issues.

What you do now determines your future!

Too Often We Think we are too
old to be active
or
too disabled to be active

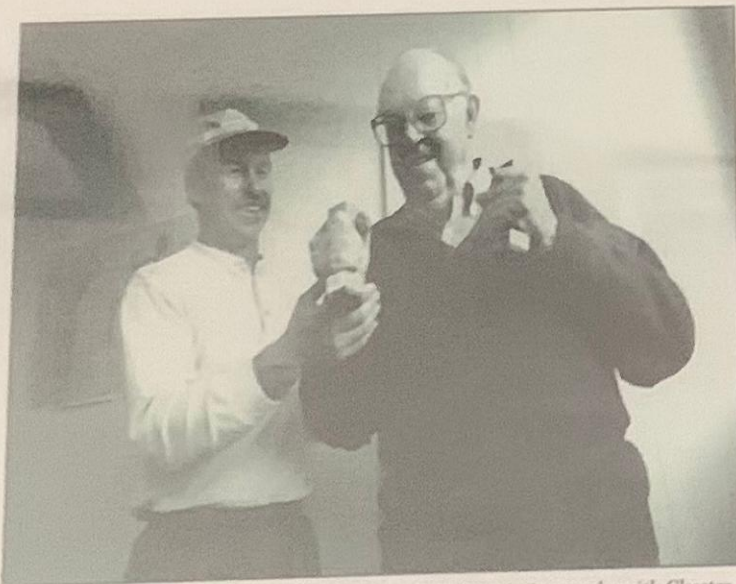
Both are wrong!

Hippocrates said it 2000 yrs ago:
“All parts of the body which have
function and used in moderation,
become healthy and well developed and
age slowly. But if left unused, become
liable to do disease and age quickly.

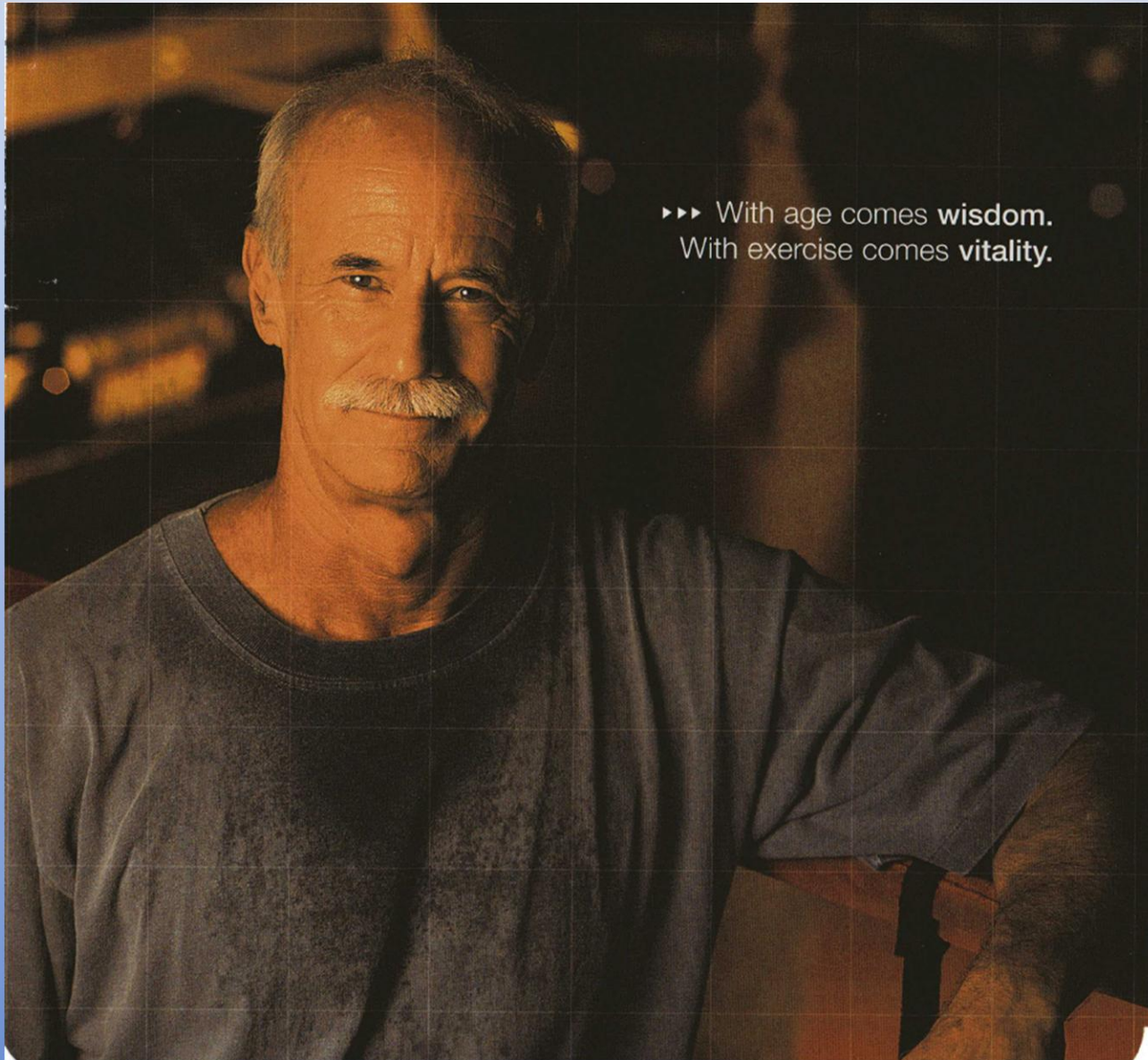
Mickey Mantle said it best

If I knew I would live this long I would've taken better
care of myself!

Strengthening exercise is beneficial at any age



Karl Knopf of the Fitness Educators of Older Adults Association works with Chester H. Brannon on light weights.



▶▶▶ With age comes **wisdom**.
With exercise comes **vitality**.

Health & Wellness is a Journey

What you do TODAY
Determines your tomorrows

Stages of Exercise

- When we are young we exercise to look good.
- When we are middle- aged we exercise for the health of it.
- When we are old we need to exercise to function fully and avoid getting frail.

Quantity of life vs Quality of Life

- While we all want to live long – truthfully we all want live long & well and avoid becoming frail.
-
- Most people are more concerned about being independent as long as they live.
- Proper health & fitness behaviors are positive steps to achieve that goal.

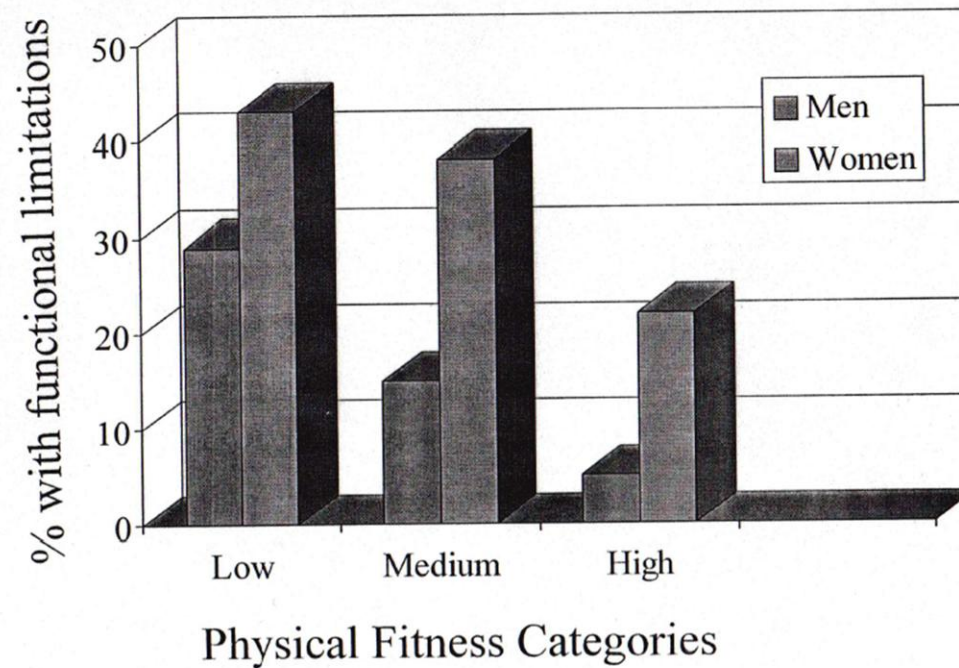
Sarcopenia = age related atrophy.

It happens without you noticing it- until its too late

- Age related muscle loss
 - Normal aging 2% / yr. x 50 yrs =
 - Active aging 1/2% / yr. x 50 yrs =
 - Grow strong NOT old!
 - A week w/o strength training makes you
 - Weak!

It is possible to become SO weak
that everyday tasks are difficult.

Effects of Fitness on Functional Limitation in 40-90 Year Old Men and Women



Avoid becoming frail by :

Staying strong – maintain function, don't fall, ROM

Avoid depression – physical activity improves mood

Don't get skinny – eat right, keep teeth

Include strength training/PRE in your daily routine
As well as aerobic exercise

Age is no barrier! GROW Strong!

- Exercise (Strength) / physical activity is the fountain of youth.
- Exercise makes you:
 - Have more confidence
 - Improves brain power
 - Improves appearance
 - Improves ADL / Function
 - Helps to reduce mild depression

The Top 10 Benefits of Exercise for Older Adults

1. Maintenance of a high level of physical and social activity increases the quality of life, enhancing social satisfaction.
2. Increased independence may be enjoyed when fitness and health are maintained. Most Americans fear infirmity and dependence more than death.
3. More energy and greater ease in performing daily routines.
4. Increased muscle tone and flexibility improve balance.
5. The more muscle tissue a person maintains, the higher his or her metabolism, making it easier to control weight.
6. Calories burned through exercise allow a person to take in more nutrients.
7. Exercise delays loss of bone mass.
8. Improvement in posture, decreasing backache and enhancing appearance.
9. Enhanced cardiorespiratory function improves peripheral circulation, decreasing the risk of atherosclerosis, high blood pressure and other circulatory problems.
10. Longer life span.

Other studies show that exercise/physical activity =

- Lowers risk of stroke by 27%
- Reduces diabetes by approx 50%
- Reduces HBP by approx 40%
- Reduced mortality & recurrent breast cancer by approx 50%
- Lower colon cancer by over 60%
- Reduces the risk of Alzheimers by 40%
- Can decrease depression as effectively as Prozac & behavioral therapy

Functional Fitness is key.
Train with a purpose!

Some Experts suggest that strength is the key to your independence.

R U FIT FOR LIFE?

The following homework assignment might tell you.

Legs = Independence

- Self – assessment - Can you
- Sit to stand = 8 times in 30 seconds
- Walk 1/2 mile with ease while talking
- Get up from the floor without holding on

- Good Leg function is critical for :
 - Balance
 - Circulation
 - Independence

Strength – upper body self assessment

- Can you carry your groceries with ease?
- Lift a bag of tan bark without hurting your back?
- Can you squeeze or grip things like you once did?

Flexibility

- Can you touch your hands behind your back – like a zipper?
- Can you touch your toes?

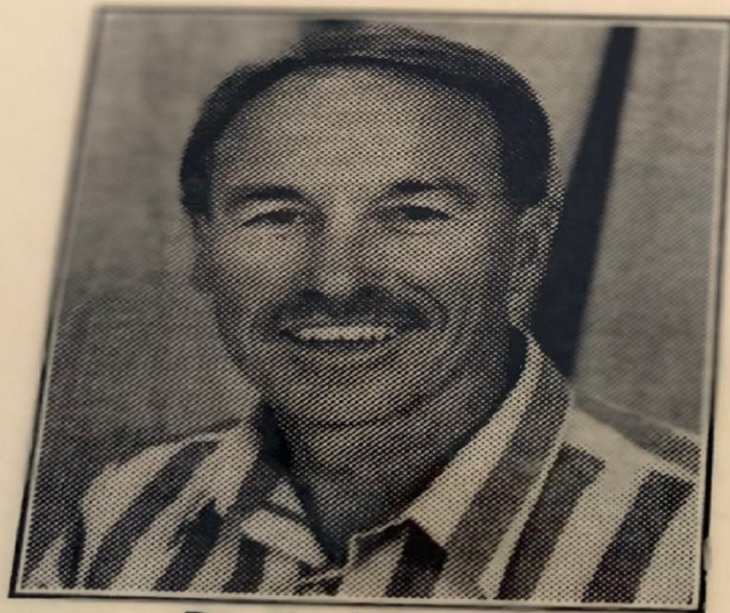
Balance

- Can you stand on 1 leg for 30 seconds?

If answered no, to this simple self assessment then you need PRE!

- Think PRE
 - P = progressive
 - R = resistance
 - E= Exercise
- This can take the shape on any method that increases load as you get stronger

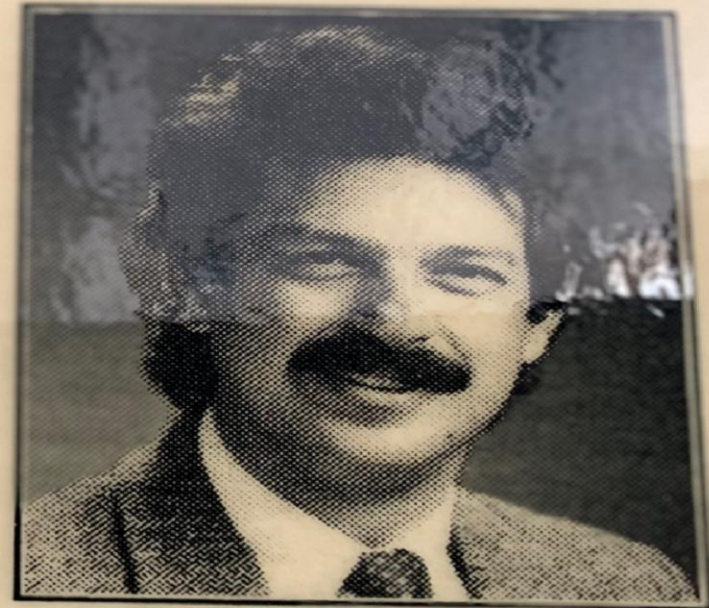
Strength training for older adults proves effective



Dr. Karl Knopf

they fear dying.

According to Knopf, losing one's independence is a



Dr. William J. Evans

physicians will begin to realize that skeletal muscle is important for the

Basic Strength Program should include:
all the major muscle groups of the body
such as:

Legs

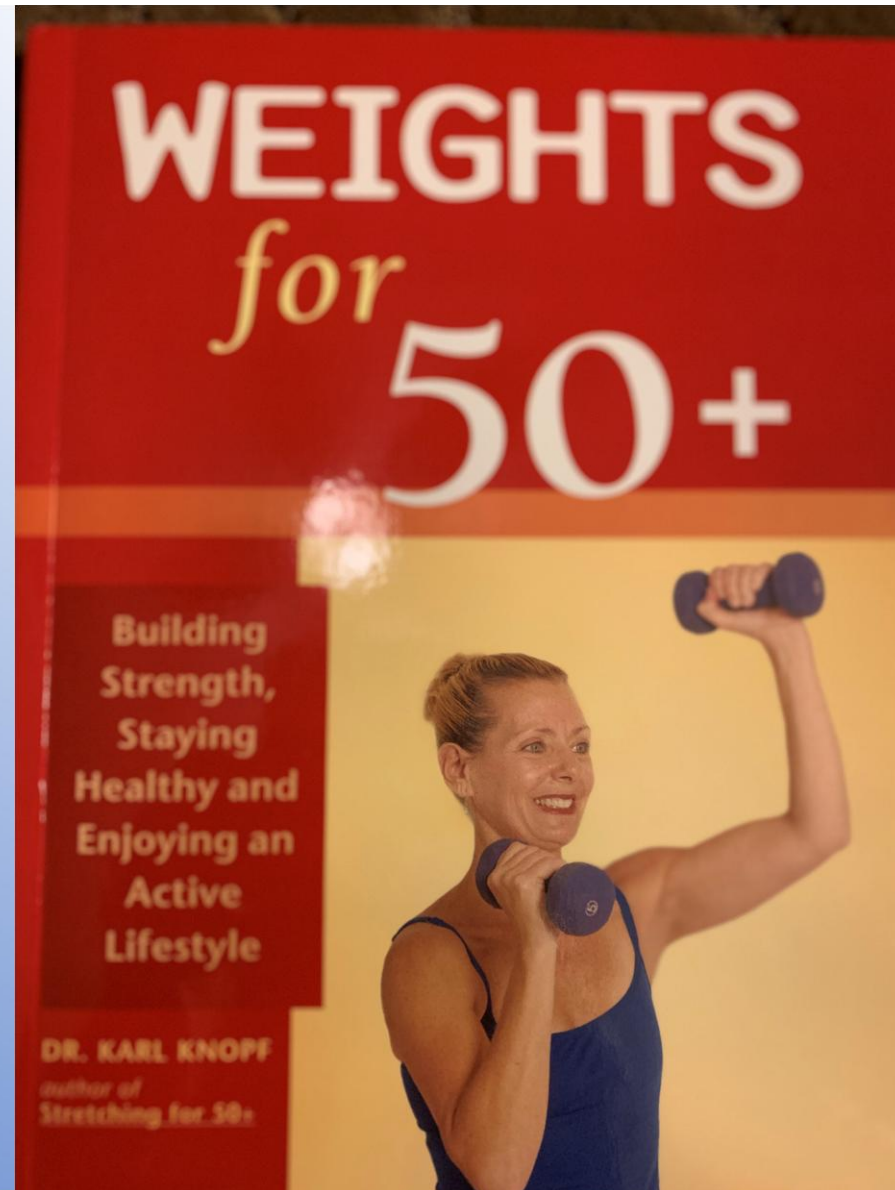
Shoulders & arms

torso /core

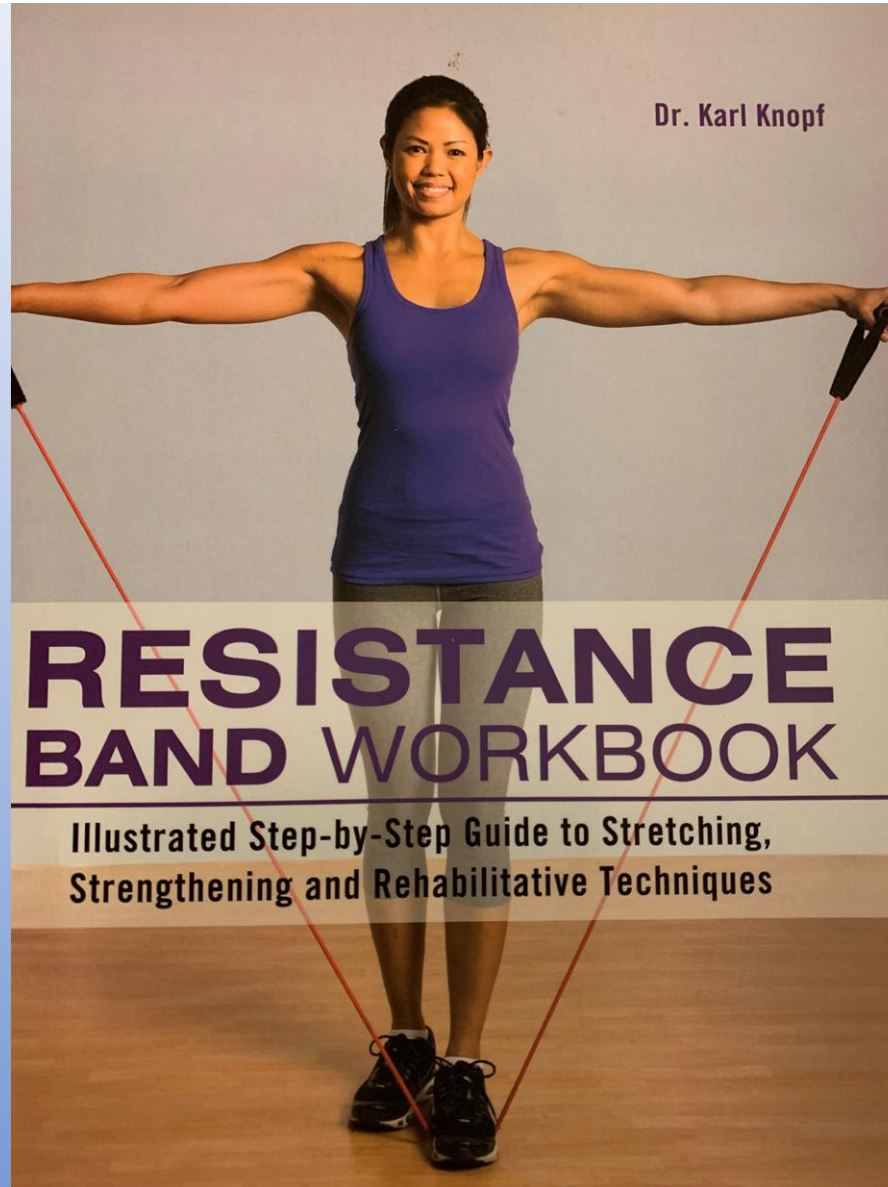
all done in functional mode manner

Many options exist for building muscular strength

Weights



Bands



Kettlebells

Dr. Karl Knopf

Safe and Customized
Programs for Building
& Toning Every Muscle

A woman with her hair in a ponytail, wearing a bright green tank top and black leggings, is smiling and holding a black kettlebell in her right hand, raised to shoulder height. The background is a solid blue color.

Kettlebells
for **50+**

Other PRE options include:

Body Weight Exercises = push-ups, pull ups etc

Water Resistance exercise = paddles

To develop strength think about your goal

For Power = 6 to 8 reps

Overall = 8-10 reps

Muscular Endurance 10+ reps

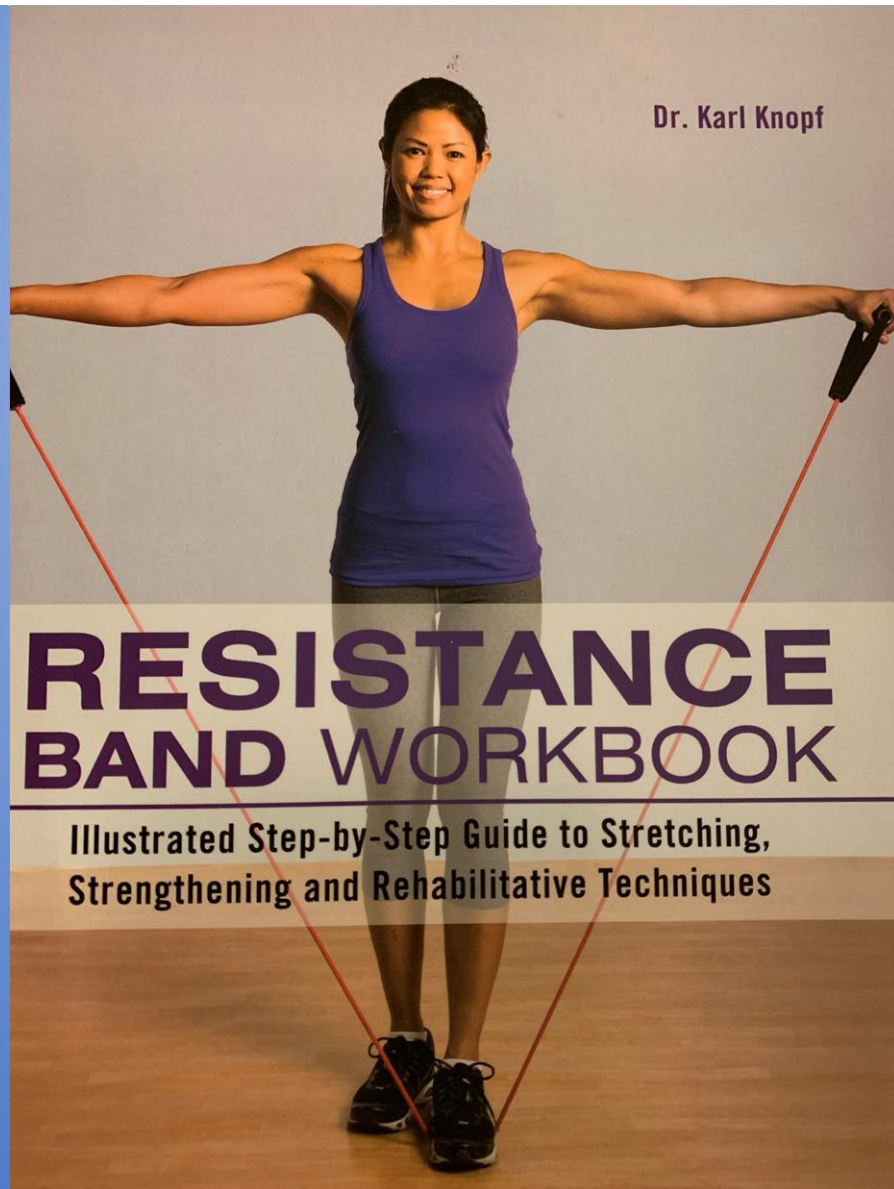
Research suggests 2-3 sets / muscle group 2-3x wk

Train with a purpose – specificity

Total Fitness program includes

- Muscular Strength
- Muscular Endurance
- Cardio – respiratory
- Flexibility
- Balance – static/dynamic
- Coordination
- Mind- body – relaxation

Examples of exercise to include in your routine

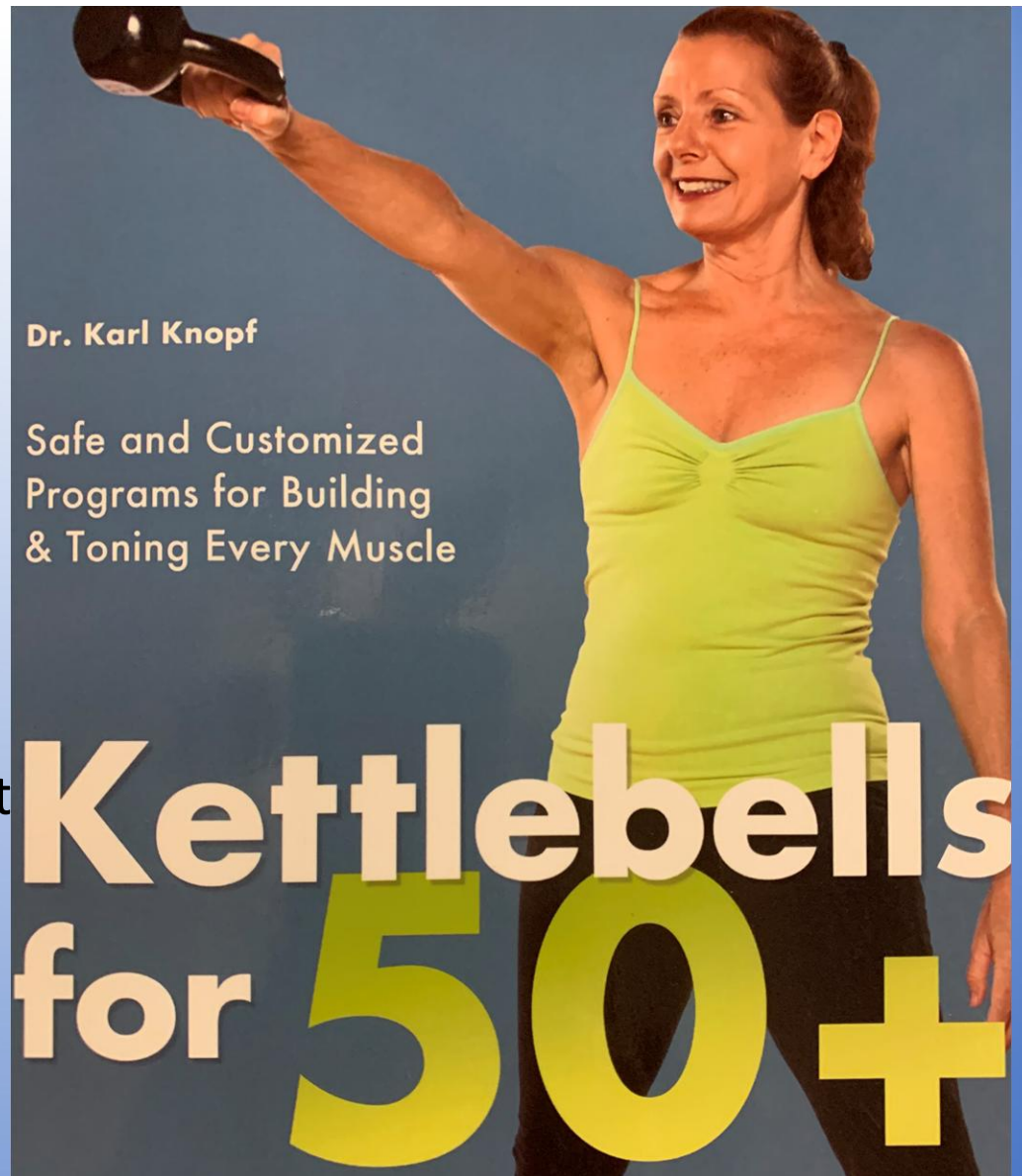


- For Shoulders

Lateral raises. w/band or DB/KB

Frontal Raise w/KB

- Frontal Raises—Dumbbell/KB
- Starting Position –
- Standing with proper posture,
- arms alongside your body
- Keeping arm straight,
- lift one arm forward to shoulder height
- Lower slowly and alternate arms
- Repeat ___ times and do_



Dr. Karl Knopf

Safe and Customized
Programs for Building
& Toning Every Muscle

Kettlebells
for 50+

WEIGHTS *for* 50+

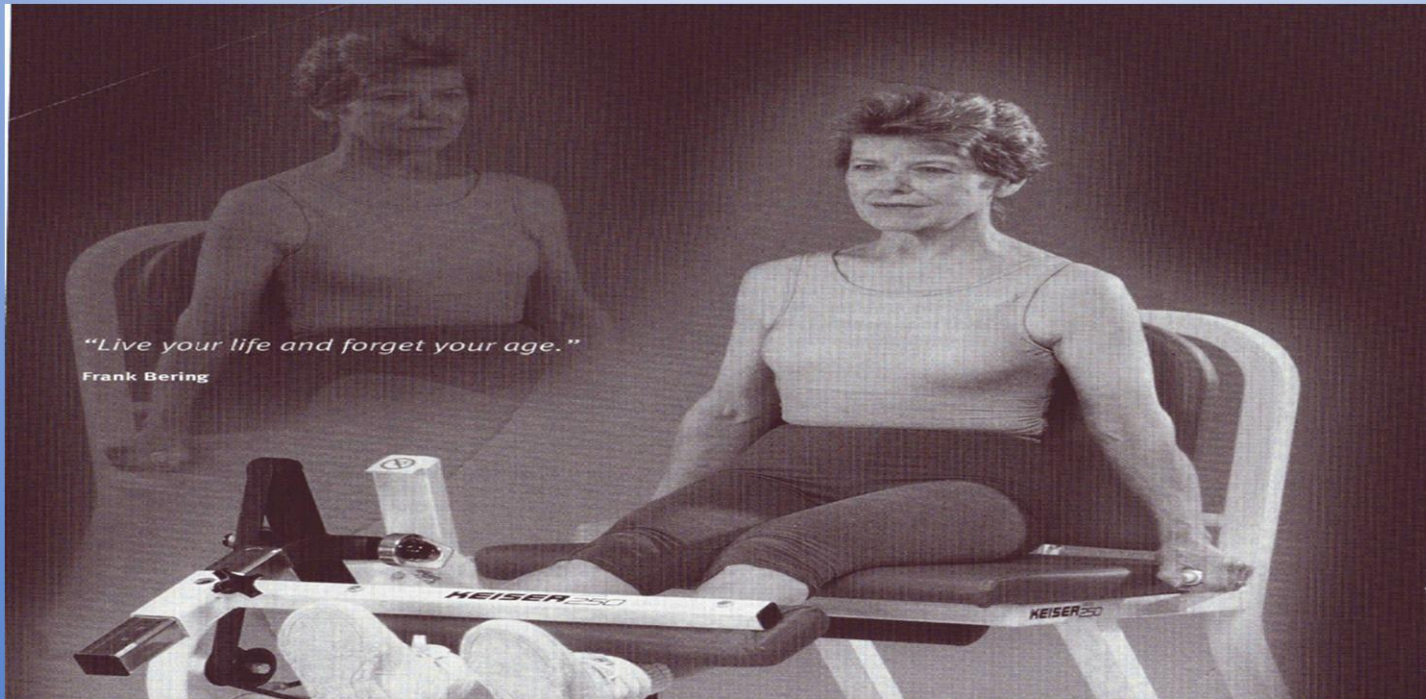
Building
Strength,
Staying
Healthy and
Enjoying an
Active
Lifestyle

DR. KARL KNOPF
*author of
Stretching for 50+*



- **Shoulder Press**

For Legs –
Leg ext w/band or ankle wts,
Chair squats
Band Leg Press



For Arms

variety of arm curls with
KB, bands, DB

Bicep Curls- DB

Starting Position

Standing /sitting with proper posture, palms
facing inward with DB in each hand.

Slowly bring DB to your shoulders

Return to starting position

Repeat ___ times and do ___ sets

- Bicep Curls – band
- Starting Position
- Standing / sitting with proper posture. Hold one end of band in your hand with your thumb up and place the other end of band under foot or fanny.
- Slowly bring band to your shoulder
- Return to starting position
- Repeat ___ times and do ___ sets

Doing It Right

- Certain popular exercises and techniques often can be controversial or even contraindicated.
- Whenever selecting an exercise always understand the benefit to risk ratio of the movement
- ALWAYS consider Benefits to Return Index.

The hardest part of any work-out is getting started

- SET YOURSELF up to succeed
- Reward yourself along the way

If NOT now when ?



Slow & steady wins the race

- Keys to a strong body and mind is:
- Maintain a healthy weight & strong legs
- Have regular check ups (men don't see MD)
- Avoid Falls – be safe & improve balance
- Physical Activity is the key not just
 - Exercise = 30 min/daily (moderate)
 - Aim for Functional fitness
 - Make it ME time!

AGE is just number It is MORE important how you feel & function



My other books available

Other Karl Knopf Books



Healthy Hips Handbook \$14.95

Healthy Hips Handbook is designed to help prevent hip problems for some and, for those with existing hip problems, provide post-rehabilitation exercises.



Healthy Shoulder Handbook \$15.95

Includes an overview of shoulder anatomy so anyone can use this friendly manual to strengthen an injured shoulder, identify the onset of a shoulder problem, or better understand injury prevention.



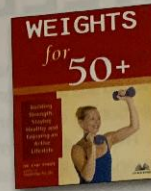
Injury Rehab with Resistance Bands \$15.95

Ranging from super easy to extremely hard, the band exercises in this book will effectively and safely help you overcome any injury.



Make the Pool Your Gym \$14.95

Shows how to create an effective and efficient water workout that can build strength, improve cardiovascular fitness, and burn calories.



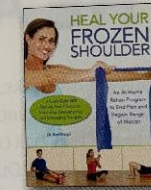
Weights for 50+ \$14.95

Weight training is one of the most effective ways to get healthy and fight the physical signs of aging. *Weights for 50+* shows how easy it is for anyone to get started with weights.



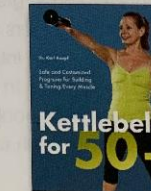
Stretching for 50+ 2nd edition \$15.95

Based on the belief that individuals over 50 can do most of the same things as 20- and 30-year-olds, this book shows how to maintain and improve flexibility by incorporating stretching into one's life.



Heal Your Frozen Shoulder \$15.95

A comprehensive at-home rehab, strengthening, and maintenance program for recovering from and preventing frozen shoulder.



Kettlebells for 50+ \$15.95

Offers progressive programs that will improve strength, foster core stability, increase hand-eye coordination, boost mind-body awareness, and enhance sports performance.

To order these books call 800-377-2542 or 510-601-8301, fax 510-601-8307, e-mail ulysses@ulyssespress.com, or write to Ulysses Press, P.O. Box 3440, Berkeley, CA 94703. All retail orders are shipped free of charge. California residents must include sales tax. Allow two to three weeks for delivery.

Books published by Ulysses Press

1-800-337-2542

	<p>Healthy Shoulder Handbook \$19.95, 160pp ISBN 978-1-56975-738-3 Anyone can use this friendly manual to strengthen an injured shoulder, identify the onset of a shoulder problem, or better understand injury prevention.</p>		<p>Healthy Hips Handbook \$14.95, 136pp ISBN 978-1-56975-919-9 A comprehensive rehab, strengthening, and maintenance program for overcoming common hip injuries.</p>		<p>Core Strength for 50+ \$15.95, 128pp ISBN 978-1-61243-101-7 A fully illustrated guide to strengthening every aspect of the core muscles, tailored to the unique needs of aging adults.</p>
	<p>Kettlebells for 50+ \$14.95, 128pp ISBN 978-1-61243-046-1 A fully illustrated program for using small kettlebells to improve strength and long-term health.</p>		<p>Foam Roller Workbook \$14.95, 96pp ISBN 978-1-56975-925-7 Comprehensive foam roller program for recovering from injury and staying pain-free and healthy in the future.</p>		<p>Stretching for 50+ \$14.95, 112pp ISBN 978-1-56975-445-0 Details how to maintain flexibility, mobility, and an active lifestyle by incorporating additional stretching into one's life.</p>
	<p>Make the Pool Your Gym \$14.95, 104pp ISBN 978-1-61243-014-0 The ultimate guide to shaping up, losing weight, and building muscle by working out impact-free in water.</p>		<p>Total Sports Conditioning for Athletes 50+ \$14.95, 144pp ISBN 978-1-56975-647-8 The perfect book for baby boomers who want to keep playing their favorite sports for years to come.</p>		<p>Weights for 50+ \$14.95, 128pp ISBN 978-1-56975-511-2 A fully illustrated program for the proper use of small "free weights" to improve long-term health.</p>

Dr. Karl Knopf has been involved with health and fitness wellness for more than 30 years. A consultant on numerous National Institutes of Health grants, Dr. Knopf has served as advisor to the PBS exercise series *Sit and Be Fit*, and to the State of California on disabilities issues. He is a frequent speaker at conferences and has written several textbooks and articles. Dr. Knopf is retired from Foothill College in Los Altos, California, where he taught adaptive fitness classes and directed the fitness therapy program. Dr. Knopf now serves as a director of fitness therapy and senior fitness programs for the International Sports Science Association, and was recently selected to the Health Advisory Board for Santa Clara County as an advisor to San Jose State University's Human Performance Department.

	<p>Beat Osteoporosis with Exercise \$15.95, 144pp ISBN 978-1-61243-555-8 Osteoporosis and bone loss affect millions of Americans and can start occurring in people as young as 30. Fractures, pain, and immobility are just a few of the alarming side effects that can result. Now, this comprehensive guide details the most effective method to preventing and treating the often debilitating condition: exercise. <i>Beat Osteoporosis with Exercise</i> provides the exercise and workout schedules that guarantee anyone, regardless of fitness level, can build strong bones.</p>				
	<p>Stability Workouts on the Balance Board \$14.95, 144pp ISBN 978-1-61243-490-2 Stability Workouts on the Balance Board offers over 100 safe, straightforward exercises that each beginners good posture, balance, and strength while helping the more advanced enhance their sporting lives.</p>		<p>Injury Rehab with Resistance Bands \$15.95, 144pp ISBN 978-1-61243-449-0 The ultimate tool for getting in shape or recovering from a painful setback, the resistance band can rehabilitate injuries on any part of the body—all from the comfort of home.</p>		<p>Trigger Point Therapy with the Foam Roller \$14.95, 96pp ISBN 978-1-61243-354-7 Trigger Point Therapy with the Foam Roller shows how to soothe, relieve, and heal the tight muscles caused by everything from hours sitting at a desk to overdoing it at the gym.</p>
	<p>Therapy Ball Workbook \$14.95, 112pp ISBN 978-1-61243-299-1 With safe, easy-to-do exercises, <i>Therapy Ball Workbook</i> offers techniques to transform troublesome backs, shoulders, necks, and other muscle groups and strengthen them to meet the rigors of everyday work and play.</p>		<p>Ab Wheel Workouts \$14.95, 96pp ISBN 978-1-61243-233-5 This handbook shows how to maximize its effectiveness so readers can safely strengthen the core while simultaneously working the back, arms, and legs. This book is designed for use with all types and brands of the device.</p>		<p>Resistance Band Workbook \$14.95, 120pp ISBN 978-1-61243-171-6 The ultimate tool for targeting, developing, and healing every major muscle group, the resistance band improves core strength, increases flexibility, tones muscles, releases tension, and rehabilitates injuries—all at home.</p>

Dr. Karl Knopf has been involved with health and fitness wellness for more than 30 years. A consultant on numerous National Institutes of Health grants, Dr. Knopf has served as advisor to the PBS exercise series *Sit and Be Fit*, and to the State of California on disabilities issues. He is a frequent speaker at conferences and has written several textbooks and articles. Dr. Knopf is retired from Foothill College in Los Altos, California, where he taught adaptive fitness classes and directed the fitness therapy program. Dr. Knopf now serves as a director of fitness therapy and senior fitness programs for the International Sports Science Association, and was recently selected to the Health Advisory Board for Santa Clara County as an advisor to San Jose State University's Human Performance Department.