

BACK SYNERGY

YOUR STRETCHING PROGRAM

This stretching program was custom designed for
the employees of



We have identified risk factors in your work environment by observing and analyzing employee's day-to-day work activities. The stretching protocols in this book were developed to minimize the effects of working in awkward or static positions, repetitive motion, and strenuous activity. Daily stretching will help you prevent strains and increase your overall strength and fitness.

Introduction

Next to the common cold, back injuries are the second leading cause of work absenteeism. Back problems affect 8 out of 10 of the adult population. These injuries result in 300,000 back surgeries performed annually.

Most people think back injuries are the result of a single lifting incident. Current medical opinion considers back injuries to be the *cumulative* result of our life-style, environment and physical condition. It's a biological fact: year after year we lose flexibility, range of motion and strength which makes us susceptible

to injury. No matter how strong we feel, the *day-to-day* activities of lifting, bending, stooping, poor posture, and improper body mechanics can cause an injury commonly called *Cumulative Trauma Disorder (CTD)*.

Drennan & Co.'s **Back Synergy** Program addresses the CTD problem through employee selection, biomechanics, ergonomics and stretching. This booklet contains Your Stretching Program, designed specifically to counteract the effects of CTD in your work.

Benefits of Stretching

REMEMBER: CHECK WITH YOUR PHYSICIAN BEFORE BEGINNING ANY NEW EXERCISE OR FITNESS TRAINING PROGRAM.

- Prepares the body for physical activity.
- Increases muscle *length* which is the most important factor in maintaining muscle tone.
- Lengthens muscles to distribute force factors to a larger area of the body to reduce strain in local areas.
- Lowers blood pressure caused by tension in constricted, tight muscles.
- Increases blood flow to muscles to help reduce stiffness and soreness.
- Improves range of motion of joints and limbs.
- Counteracts the effects of repetitive motion, awkward positions, force, and static positions at work and at home.
- Improves coordination, posture, and mental alertness.
- Because adults do not have a blood supply to the discs, motion is the only way for the discs to absorb nutrients and expel waste.
- Improves overall strength throughout the full range of motion.

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Tips on Stretching

Perform these stretches early in the day to warm and tone muscles for bending, stooping, lifting, climbing and other strenuous activity; and at intervals throughout the day to counteract cumulative effects of static positions and heavy lifting. The following guidelines will help you get the most benefit from your stretches. Before starting each stretch:

- **RELAX** and take a deep breath. Breathe slowly and evenly
- **FOCUS** on your muscles as you stretch
- Do each exercise **SLOWLY**. *No bouncing!*
- Stretch to a feeling of moderate muscular tension (just beyond the point of resistance)
NO PAINFUL MOVEMENTS ALLOWED!
- Hold each stretch for 10 to 20 seconds unless otherwise noted.

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1. NECK ROTATION



BENEFITS

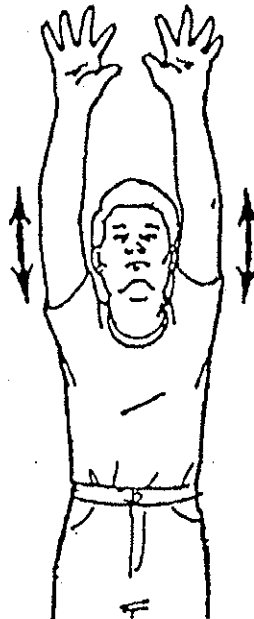
- Releases tension in neck and shoulders from static positions encountered while driving or working in awkward positions for extended periods.
- Can alleviate cause of tension headache and increase readiness for physical exertion.
- Increases neck range of motion for improved field of vision without strain.

INSTRUCTIONS

Face forward. Without rotating neck, tilt head to the right. Now, SLOWLY lower head toward right shoulder. Repeat to the left. Now, with shoulders back, SLOWLY lower chin toward chest; then SLOWLY reverse and lower head toward back. Return to upright position. Hold each position for a 10 second count.

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2. OVERHEAD STRETCH



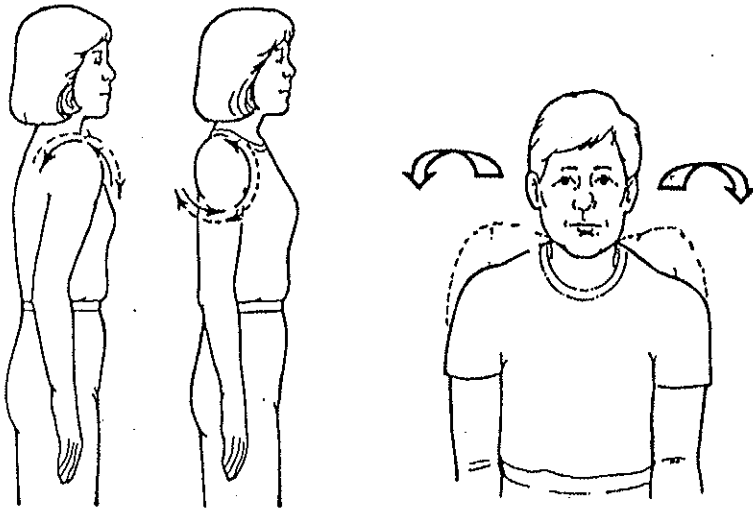
BENEFITS

- Improves range of motion to shoulder joints.
- Dynamically stretches all the mid and upper body muscles.
- Helps counteract poor sleeping postures and extended sitting in static positions as in driving or working at a desk.
- Prepares muscles for working in sustained overhead reach positions.

INSTRUCTIONS

With head facing forward, raise arms overhead and stretch to slight resistance. You should feel the abdominals and low back muscles stretch. Hold 10 seconds and release.

3. SHOULDER ROTATIONS



BENEFITS

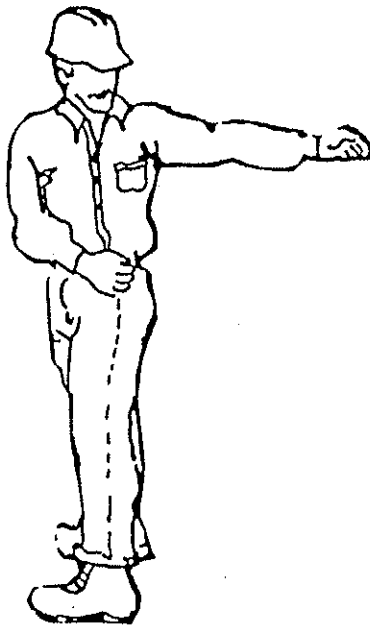
- Increases circulation to upper body, loosens tight muscles and prepares muscles for strenuous activity.
- Decreases neck and shoulder tension common to sustained driving or sitting in static position.
- Improves strength to assist with all lifting and pulling tasks whether at work or at home.

INSTRUCTIONS

While in an upright position, SLOWLY rotate the shoulders forward in a circular motion, then reverse the motion and rotate toward the chest. Repeat 5 times. Exaggerate the rotation to increase your range of motion and shoulder flexibility. Maintain the head in a stabilized, upright position throughout the stretch.

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4. BACK ROTATION



BENEFITS

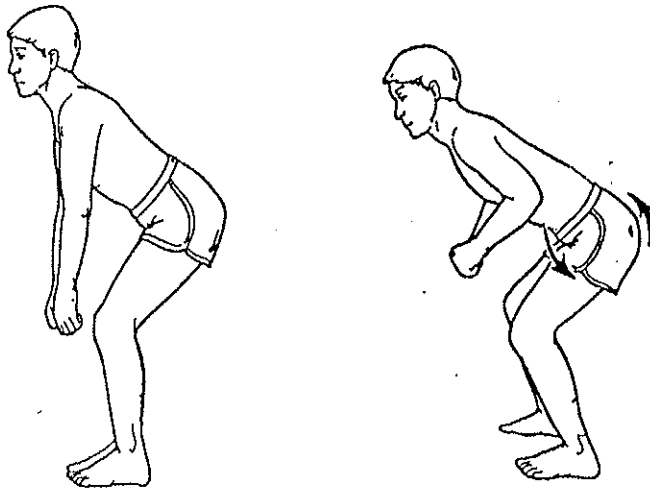
- Improves circulation to low back muscles.
- Strengthens and increases range of motion for all tasks which include trunk rotation, awkward mid-body positions, regular lifting and other strenuous activities.

INSTRUCTIONS

Extend left arm out to side and grasp left hip with right hand. SLOWLY rotate upper body to the left while stabilizing hip with right hand. Hold for 10 to 20 seconds. Repeat once, then perform to opposite side.

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5. POWER STRETCH



BENEFITS

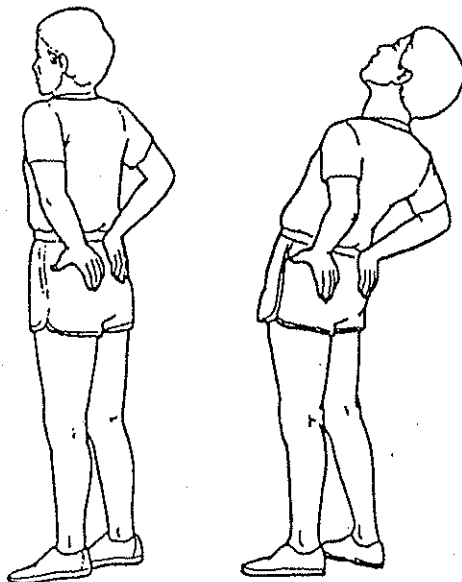
- Strengthens low back muscles used commonly in lifting.
- Improves flexibility to lower back, gluts, hamstrings and calf muscles.
- Creates an awareness of the optimal body position used when lifting heavy loads from below the knees.

INSTRUCTIONS

Stand upright with feet shoulder width apart. Bend knees slightly; maintain head upright, shoulders back, and the natural curve of the spine. SLOWLY bend forward at the trunk, maintaining body position as described. Hold for 3 seconds. Return to upright position. NOTE: Repeat several times for low back strengthening.

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6. LOWER BACK STRETCH



BENEFITS

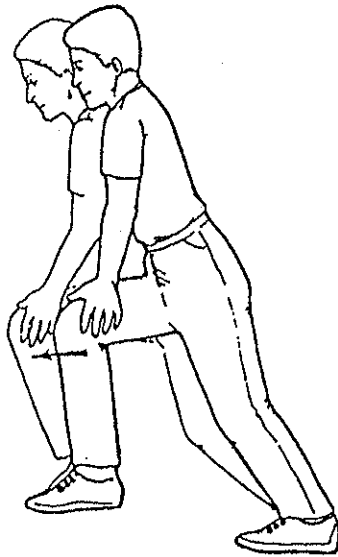
- Reverses strain to lumbar discs from repeated forward bending, sitting and standing.
- Strengthens and adds flexibility to back and abdominal muscles.
- Reverses the feeling of fatigue after long periods of sitting, driving, or working in a bent forward position.

INSTRUCTIONS

Place heels of hands on small of back. SLOWLY arch upper body backward to a feeling of slight tension. Lift chin and allow head to stretch backward as well. Hold to count of 10, then SLOWLY return to upright position. Repeat once more.

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7. CALF STRETCH



BENEFITS

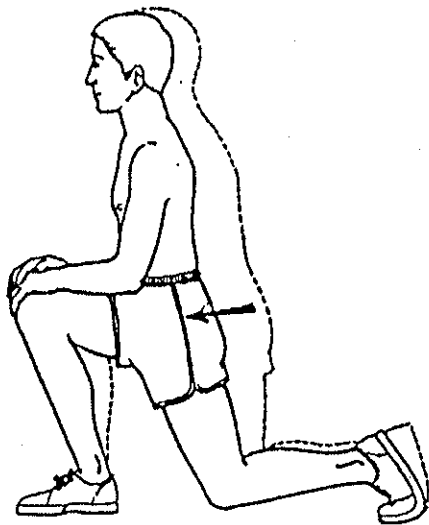
- Increases flexibility to legs, especially hamstrings and calf muscle groups along with Achilles tendon.
- Increases circulation to lower extremities in preparation for lifting, climbing, and other strenuous activities (especially after sitting or driving for long periods).

INSTRUCTIONS

With head up, step forward 2 to 3 feet keeping both heels in contact with the ground and the back straight. Place both hands on forward knee, SLOWLY move upper body forward until tension develops in the calf. Hold for a count of 10, then switch legs and repeat. Repeat once more with each leg.

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8. LUNGE



BENEFITS

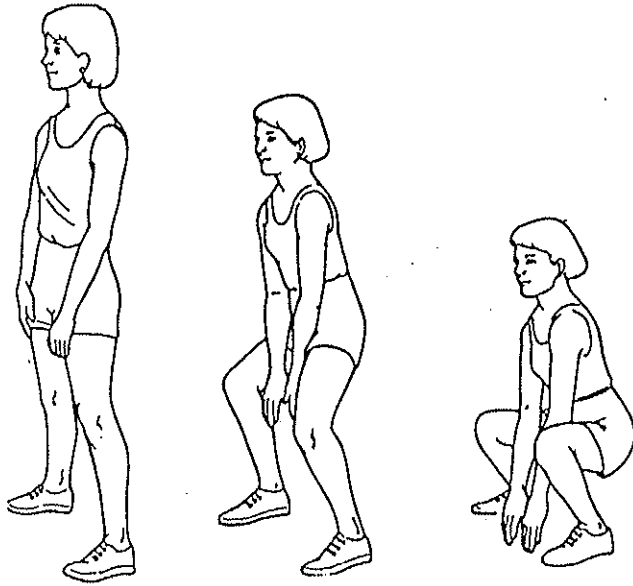
- Increases strength in upper leg and hip muscle groups.
- Increases flexibility in hip, knee, and ankle joints.
- Improves overall body posture.
- Decreases tension and strain in lower back.

INSTRUCTIONS

From a standing position, step one leg forward 2 to 3 feet. With back straight and head upright, lower the body downward vertically. Place both hands on forward knee for balance. The front heel stays in contact with the ground. Try to achieve a 90 degree angle in both knee joints. Continue movement SLOWLY up and SLOWLY down 5 to 10 times. Repeat with other leg forward.

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9. 1/2 (DEEP) SQUAT



BENEFITS

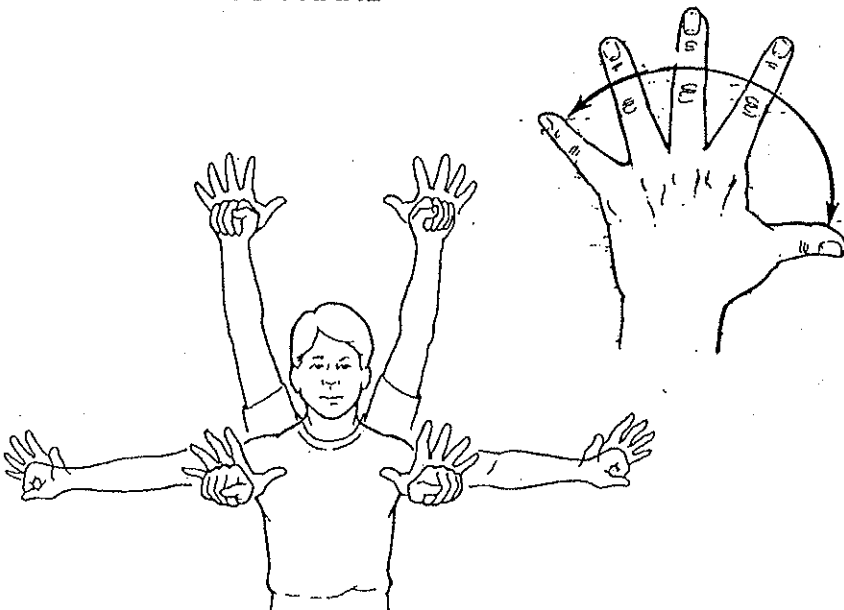
- Increases strength and flexibility in lower legs essential for lifting heavy objects.
- Creates an awareness of the proper bio-mechanics for the "Power Lift".

INSTRUCTIONS

Begin exercise in an upright position; head up, shoulders slightly back, back in its natural curve. While maintaining posture, emphasize lowering hips, then naturally bend knees to 1/2 position. Keep knees inward near arms for balance. Hold 10 seconds.

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10. OPEN/CLOSE HAND



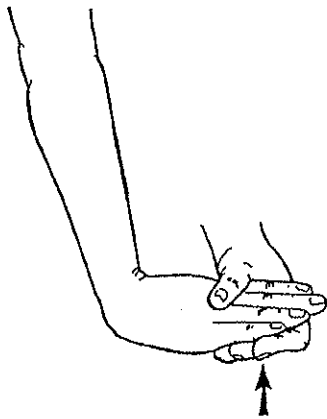
BENEFITS

- Increases flexibility in fingers and hands necessary to work with hand tools for long periods.

INSTRUCTIONS

Open your hands and spread the fingers as far apart as you can. Hold for 5 to 10 seconds, then close hands into a fist. Repeat several times with arms in varied positions. Get in to the habit of doing this exercise routinely as you work throughout the day.

11. WRIST/FINGER EXTENSION



BENEFITS

- Prepares wrist and finger muscles for forceful use of hand tools.
- Increases flexibility and circulation to reverse the effects of repetitive motion of hands and wrists.
- When performed throughout the day, relieves fatigue from extended use of hand tools.

INSTRUCTIONS

Hold the left wrist with the right hand as shown. Bend the wrist and fingers up SLOWLY until you feel the stretch. Be sure to keep the fingers straight. Hold 10 to 20 seconds. Repeat with the right hand.

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12. THUMB EXTENSION



BENEFITS

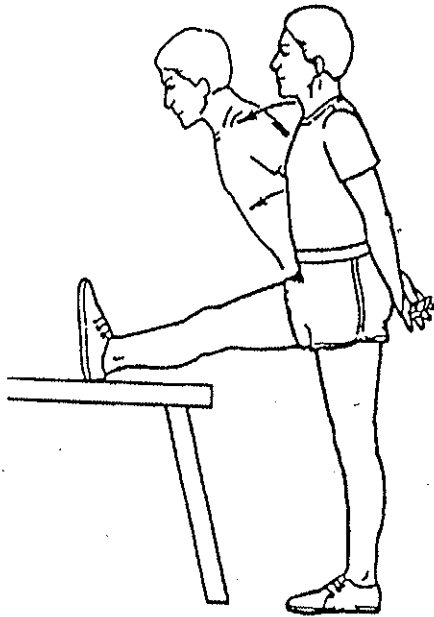
- Increases flexibility and ability to maintain grip on small hand tools for extended periods.
- Relieves fatigue from extended gripping of hand tools.

INSTRUCTIONS

Bend your left thumb SLOWLY backward with the other hand as shown. Hold 10 to 20 seconds. Repeat with the right thumb.

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13. HURLER'S STRETCH—AT HOME



BENEFITS

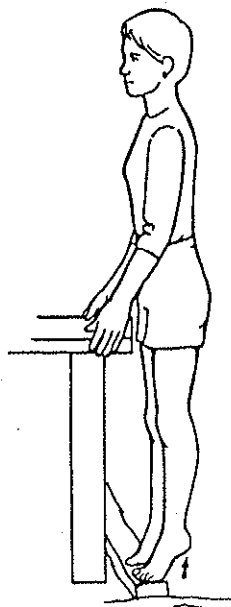
- Improves hamstring and hip flexibility essential for proper use of the "power lift".

INSTRUCTIONS

Raise one leg to balance on raised surface to about a 45 to 60 degree angle. With both legs slightly bent, clasp hands behind back and SLOWLY move shoulders forward while back remains straight. Hold for a count of 10, then repeat with other leg. Repeat twice more.

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14. TOE RAISES—AT HOME



BENEFITS

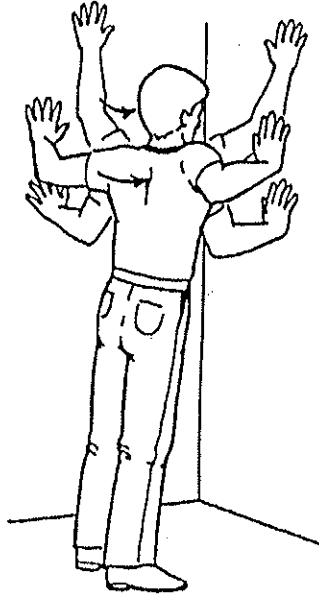
- Increases strength and flexibility to ankles necessary to maintain stability on uneven work surfaces.
- A good warm up to prepare ankles for heavy work or sports activity.

INSTRUCTIONS

Stand with feet 12 inches apart. Balance toes on a two by four or other raised surface such as a low curb. Raise up SLOWLY onto your toes as high as you can. Lower your heels SLOWLY to a full stretch (below toe level if possible). Repeat several times to increase strength.

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15. SHOULDER STRETCH—AT HOME



BENEFITS

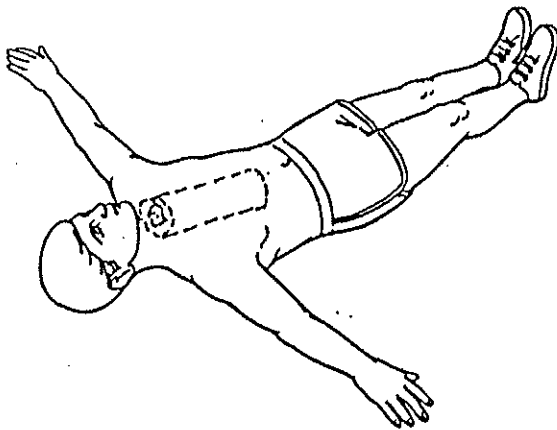
- Counteracts rounding of the shoulder and upper back from slumped sitting posture such as driving or computer work.
- Quickly relieves pain and reduces shoulder and chest fatigue.
- Improves posture by stretching the chest, shoulder muscles and ligaments.

INSTRUCTIONS

Stand in a corner 1 to 2 feet from walls with hands position as shown on each wall angle. Lean into the corner so that you feel a stretch. Vary the stretch by moving your arms higher or lower, or by standing farther away from the wall. Hold each stretch 10 to 20 seconds.

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16. TOWEL STRETCH—AT HOME



BENEFITS

- Great for relaxing when you get home from work or after particularly stressful or strenuous activity.
- Brings shoulders and chest back from sustained forward, hunched, or awkward positions.
- Relieves stiffness and muscle fatigue; actually puts you in a better mood!

INSTRUCTIONS

Do this one at home to relax and improve your spirits! Make a towel roll and lay across it longways, between your shoulder blades. (Do this on the floor, not a soft bed.) Let your head relax back to the floor. Spread your arms out straight. Breathe deeply and remain in this position for 3 to 5 minutes.

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Remember:

Physical fitness

(good muscle tone and flexibility)

is key to preventing injuries on the job and at home. Stretching before work or leisure activity can eliminate sore muscles and begin to reverse the cumulative effects of daily strenuous activity.

It's Your Responsibility!