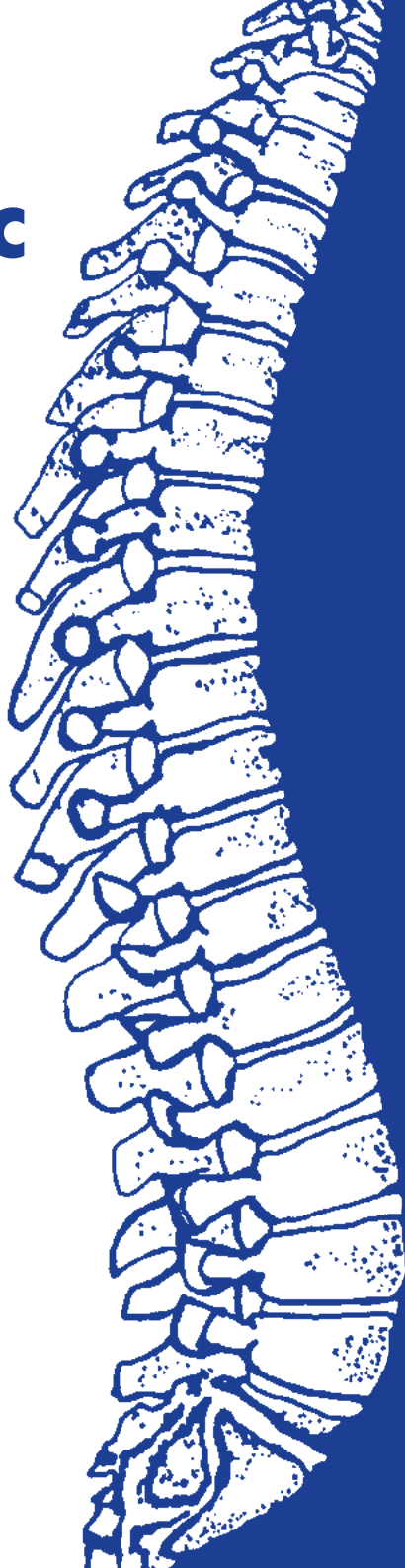


Corrective Chiropractic Exercises



THE HUMAN SPINE



Cervical Spine

7 Vertebrae

Thoracic (Dorsal) Spine

12 Vertebrae

Lumbar Spine

5 Vertebrae

Sacrum

Coccyx

CORRECTIVE CHIROPRACTIC EXERCISES

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'The Doctor of the future will give no medicine but will interest his patients in the care of the human frame, in diet, and in the cause and prevention of disease.'

Thomas A. Edison



INTRODUCTION

A staggering number of Australians have some kind of spinal problem. Statistics show that the percentage is increasing.

As Chiropractors, we are concerned about this trend, and have produced this booklet in the hope that at least some of our population may benefit from doing corrective exercises.

What is correct and what is incorrect exercise has long been a contentious issue. It is the opinion of the authors (and we hope we are speaking for all Chiropractors practising in Australia) that the exercises described herein are 'safe'.

In order to facilitate your recovery, and maintain the correction achieved by your Chiropractic adjustment, your Chiropractor will recommend several exercises from this booklet.

Remembering that a lot of the degenerative changes in your spine are largely irreversible and it's function may never return to one hundred percent efficiency, you can nevertheless help yourself and your Doctor of Chiropractic by doing correct and regular exercise. The law of nature is 'you use it or you lose it'.

DR NOEL J PATTERSON *B.Sc., MIR, DC, ICSSD, FICC, FACC.*

CHIROPRACTOR

PAST PRESIDENT C.A.A. COUNCIL ON SPORTS INJURIES

HOW TO MAXIMISE YOUR SPINAL AND GENERAL HEALTH

- When bending, bend at the knees. This is especially important upon repeated lifting, for example children.
- Don't lift objects heavier than you can lift with ease. Get help lifting if the object is too heavy or too awkward.
- Carry objects as close to your body as possible. Try to avoid carrying parcels or babies on your hip, alternate the side on which the load is carried.
- For school children, backpacks are the best way of carrying schoolwork. If shoulder bags or handbags are used, regularly change it from shoulder to shoulder.
- When working around the house or garden, avoid working for long periods of time consecutively. Take regular breaks and work within comfort levels. For example when vacuuming, bend only at the knees and limit yourself to one room at a time.
- When standing stationary for long periods of time, reduce the stress on your low back by resting one foot on a small object (100 to 150mm in height is ample). Alternate feet regularly and at times stand with your weight spread evenly on both feet.
- If you are required to work at a computer and/or desk for the majority of the day, it is essential to take regular breaks and stretch throughout the day. The neck exercises in this book are very simple and can be done many times while at work. We are not physically designed to sit down for 4 hours straight, if we do, symptoms will start to show eg headaches, tight shoulders and neck, loss of movement, pins and needles.
- Drink 2 litres of water every day, even more on hot days.
- Maintain a regular exercising and stretching routine.
- Be consistent with exercise, avoid doing rigorous exercise sporadically.
- Try to avoid sleeping with more than one pillow, and never sleep on a couch with your head resting on the armrest.
- Health is a balance within the body and if you stress the body or work it too hard, then you must rebalance the body in the form of correct exercises and stretching.

CORRECTIVE CHIROPRACTIC EXERCISES

When to exercise

Exercise during the day for better posture. Take deep breaths to maintain alertness. Exercise in the evenings to help fatigued muscles and restore circulation. Develop a regular exercise period for ten minutes each day at your convenience.

Caution concerning exercise

Too many people have become discouraged with exercising because they did too much on the first day, leaving themselves stiff and sore so that they will not try it again. Fire can be used to heat your home and add comfort to your life and it can also be used to burn down your house and cause injury to you; exercise can also be both beneficial and harmful. So, if you are beginning an exercise programme for the first time, *stop before you get too fatigued*. If you have discontinued exercise for some time, start from the beginning or at least do less than you were doing before you stopped.

If you are stiff from exercising the day before, cut back on the number of exercises. Never unduly force a stiff muscle because you can injure it.

IF ANY PRESCRIBED EXERCISE CAUSES PAIN EITHER DURING OR AFTER ITS PERFORMANCE, DISCONTINUE THAT ACTIVITY AND CONSULT YOUR CHIROPRACTOR. DO ONLY THOSE EXERCISES PRESCRIBED SPECIFICALLY FOR YOU.

Note: Spinal exercises cannot correct postural deficiencies which are congenital in origin. Generally exercises will not correct spinal misalignments (subluxations). When corrective chiropractic adjustments are given to remove or ease the cause of particular health problems these specific exercises will help in maintaining improved health by improving spinal stability.

STRETCHING AND FLEXIBILITY

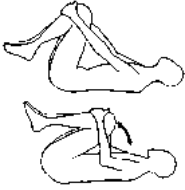
Nature has a way of maintaining good muscle tone and flexibility, and that is by stretching. Watch a cat or dog after they have been resting – the first thing they do is stretch. Stretching is nature's way of maintaining the flexibility of joints, ligaments and muscles. After periods of inactivity, stretch to loosen tight ligaments and muscles and free slight joint restrictions.

When not used, connective tissue shortens and stiffening occurs. Stretching lengthens this tissue and allows it to relax. Stretching stimulates a richer flow of blood to the tissues, relaxing and 'limbering up' the large muscles and ligaments, making the body more flexible.

Bad posture and the ageing process can result in overstrain of muscles and ligaments. As you grow older, muscles become shorter and tighter (especially when not used) and lose tone. Inactivity can cause the same thing. A tightened or contracted muscle or ligament will reduce the ranges of movements in joints.

RECOMMENDED EXERCISES

EXERCISE 1

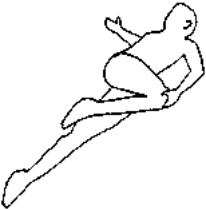


Knees to chest.

Lie on your back. Bend both knees and put a hand on each. Pull your knees to your chest and hold for approximately 7 _____ seconds. Relax out to arms length.

Do 3 _____ repetitions. Repeat 1-2 _____ times per day.

EXERCISE 2



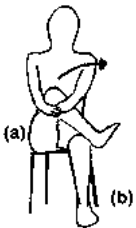
Sacro-Iliac Motion

Lie flat on your back, bend one knee and gently roll it over your straight leg, tucking your toes behind your knee. Use the hand on the straight leg side to hold it there for 7 _____ seconds. Make sure your shoulder remains flat on the floor, and it is only the pelvis that rotates.

Repeat procedure for other side. Do 3 _____ repetitions.

Repeat 1-2 _____ times per day.

EXERCISE 3

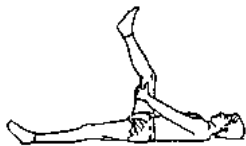


Buttock (Piriformis) Stretch

Sit upright in a straight back chair and place the heel of one leg (a) on the knee of the other leg (b). Grasp the knee of leg (a) with both hands and pull it towards the opposite shoulder (the arm on the side you are pulling your knee towards should do most of the work). This exercise could also be done lying on your back. Hold this stretch for 7 _____ seconds and return to beginning.

Do 3 _____ repetitions. Repeat 1-2 _____ times per day.

EXERCISE 4

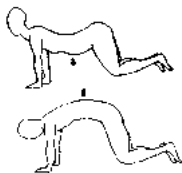


Supine Hamstring Stretch

Lying on back and support thigh behind knee, pull leg towards chest then slowly straighten knee until a stretch is felt in back of thigh. Hold 7_____seconds.

Do 3_____repetitions. Repeat 1-2_____times per day.

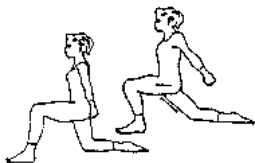
EXERCISE 5



Trunk arching

Kneel on all fours on the floor. Arch your back and drop your head, then slowly drop your abdomen and raise your head. Do 3_____repetitions. Repeat 1-2_____times per day.

EXERCISE 6



Stretching of Hip Flexors (PSOAS) and Anterior Thigh Muscles

Place knee of side to be stretched on floor.

Place foot of other leg in front of you pointing straight ahead with knee bent to approximately 90°.

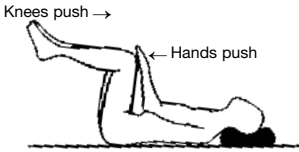
Clasp hands behind you.

Slowly push pelvis forward while gently leaning upper body back.

Hold for 7_____seconds. Do 3_____repetitions.

Repeat 1-2_____times per day.

EXERCISE 7



Isometric Abdominal Muscle

- (a) Lying on your back, make sure your head is supported by a pillow. Bend your knees to 90° and your hips to 90°. Apply pressure slowly by pushing your hands into your knees without changing your knee position or angle. Hold for 5_____seconds, then gently relax. Repeat 10_____times.
- (b) Oblique Abdominals: same set up as above, except this time put both hands on one knee and apply gentle resistance for 5_____seconds. Repeat 10_____times.

EXERCISE 8



Abdominal Curl

A basic exercise to help the abdominal musculature. Lie on the floor with the knees bent, feet flat on the floor, and always rest your head on a small pillow between repetitions. With your hands crossed on your chest, slowly raise your head and shoulders as one unit, making sure the lower tip of the shoulder blade stays on the ground. Hold briefly and then slowly return to normal position. Repeat 10_____times. Do 2-3_____sets.

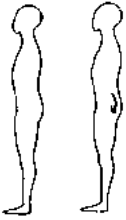
EXERCISE 9



Obliques Side Bridge

- i Lying on your side with legs one in front of the other. Get up onto your elbow (hand stays on ground as well). Slowly lift torso up so that you are supported from your arm and your knees. Hold for 5_____seconds. Do 5_____repetitions then repeat on other side.
- ii As above except only feet and arm remain on ground.

EXERCISE 10



Pelvic Floor

Standing upright contract your buttock muscles (pushing them together) and try to “push” your pelvis forward. At the same time contract the muscles you would use to stop urinating midstream and hold for 5____seconds. Do 10____repetitions. Repeat 1-2____times per day.

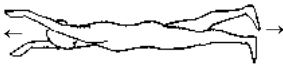
EXERCISE 11



Lower Back Bridge

- i Lie on floor with your knees bent. Slowly raise your buttocks and back off the floor (shoulders stay flat) until your torso is in line with your knees - hold for 5 ____seconds then slowly lower down. Do 10____repetitions.
- ii Same as above, except when you get your back up - slowly extend one leg until it is in line with your chest and thighs.

EXERCISE 12



Erector Spinae Strengthening

Lie on your stomach with your arms outstretched in front of you. Lift your right arm 5cm off the ground and at the same time lift your left leg (keep knee straight) 5cm off the ground. While doing this, now stretch arm and leg lengthways. Hold for 5____seconds then repeat opposite sides. Do 10____repetitions. Repeat 1-2____times per day.

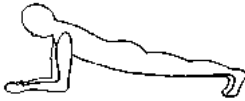
EXERCISE 13



Opposite Arm & Leg Raise on All Fours

Kneel on all fours and stretch out opposite arm and leg straight so they are in line with your body. Hold for 5____seconds then repeat on other side. Do 10____repetitions.

EXERCISE 14

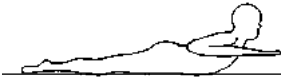


Hover

Lift up so that you are holding your body straight and balancing on your toes and elbows. Hold for 5_____ seconds then drop down. Repeat 10_____times.

Less difficult version: As above but on elbows and knees.

EXERCISE 15

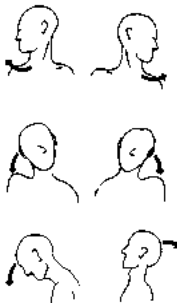


Chest Raise

Lift your upper body up from the ground without using your hands as shown. Hold for 5_____seconds.

Repeat 10_____times.

EXERCISE 16



Neck mobility exercise

This exercise involves simply putting the neck through its full range of movement - can be done sitting or standing - at any time of the day. Bend your head forward as far as possible, bend it back as far as possible, turn it as far left and then right as possible, then put your left ear toward your left shoulder, right ear to right shoulder. Now repeat the sequence. **AT ALL TIMES DO THIS EXERCISE SLOWLY AND GENTLY, ATTEMPTING TO PUT IT TO THE EXTREMES OF MOVEMENT.**

Repeat 1-2_____times per day.

*** Never roll the neck.**

Note:- For extra stretch with the side tilting, while seated, anchor your hand to the chair on the side opposite to head movement.

EXERCISE 17



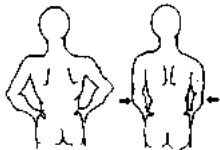
ditto
for side
bending

Neck strengthening exercises

Do sitting **and with gentle resistance only.**

- Hold your forehead in the palm of your hand - push your head against the resistance of your hand for 5____seconds - relax. Do 10____repetitions. Repeat 1-2____times per day.
- Hold the back of your head in the palm of your hands - push your head backwards against the resistance of your hand for 5____seconds - relax.
- Hold the left side of your head in the palm of your hand - push your head left against the resistance of your hand for 5____seconds - relax. Repeat for the right.

EXERCISE 18

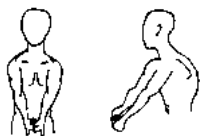


Rhomboid Strengthening

Standing or sitting (especially if you work at a desk), gently squeeze shoulder blades together and down towards buttocks. Hold for 5____seconds.

Do 5____repetitions. Repeat 1-2____times per day.

EXERCISE 19



Rhomboids stretch

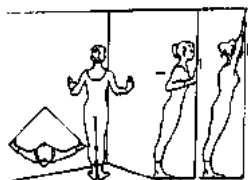
Standing or sitting, interlace your fingers in front of you.

Push your hands towards the floor, arching your upper back at the same time and roll your shoulders forward.

Hold for 5 seconds. Do 5____repetitions.

Repeat 10____times per day.

EXERCISE 20



Stretching of Anterior Shoulder Capsule and Pectoral Muscles.

Stand facing corner between walls, arms bent at waist level and palms on walls. Lean forward into corner and hold for 7____seconds. Move your hands a little further up the wall after each stretch until arms are fully elevated.

Repeat 1-2____times per day.

EXERCISE 21



Groin Stretch

- a) Lying on back put one ankle on top of the other knee. Gently apply pressure on bent knee so as to feel a stretch in the groin. Hold stretch for 7____seconds. Do 3____repetitions. Repeat 1-2____times per day. Repeat other side.
- b) For a more advanced stretch, sit up, bend both knees so as the soles of both feet face each other. Pull ankles towards buttocks, keep back straight and apply pressure onto the knees with the elbows so as to push the knees away. Hold for 7____seconds. Do 3____repetitions. Repeat 1-2____per day.



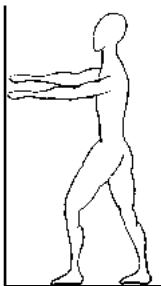
EXERCISE 22



Quadricep Stretch

- Stand up and be ready to support the body with one hand. Bend knee and pull ankle up towards buttock as far as possible. Hold for 5____seconds. Do 3____repetitions. Repeat 1-2____times per day. Repeat other side.

EXERCISE 23



Calf and Achilles Stretch

- i) While standing place both hands on a stable wall at level with shoulders while feet are comfortably apart, one foot in front of the other. Keep back leg straight with heel on ground. Bend the front knee. Push into wall and hold for 7____seconds. Do 3____repetitions. Repeat 1-2____times per day.
- ii) Use same position as above but bend the back leg this time still be mindful to keep heel on the ground. Swap feet and stretch other leg. Hold for 7____seconds. Do 3____repetitions. Repeat 1-2____times per day.

SWIMMING EXERCISES

Swimming is undoubtedly one of the best exercises for the spine because the buoyancy of the water reduces gravitational stress and the resistance of the water enhances muscle development and strength.

Below is a series of exercises to be done in the water. These exercises will help strengthen spinal, leg and arm musculature, and increase cardio-vascular fitness. They should ideally be done in waist deep water.

No recommended distances are shown because the starting fitness level of each individual is so variable you should use to your own discretion.

SWIMMING (a flat Kickboard is required for these activities)

1. Face down, pater kick – hands on kickboard.
2. On back, pater kick – hands on kickboard.
3. Face down, pater kick – one hand on kickboard, one hand in the air.
4. Freestyle (overarm) – kickboard between thighs.
5. Breaststroke – kickboard between thighs.
Breaststroke – frog kick leg action is to be avoided at all times. It feels good to do but is not beneficial for your spine.
6. Backstroke – kickboard between thighs.

RUNNING – WALKING

1. Straight running (through the water) – using arms.
2. Straight running – hands on shoulders.
3. Running backwards – hands on shoulders.
4. Running sideways – hands on shoulders.
5. Running – bringing opposite knee to opposite elbow.

INTERVAL WORK

1. Water kicking (done holding onto the side of the pool – lying either face down or on your back. The time each activity is carried out will depend on your level of fitness – to illustrate the procedure, sample times are given).
Pater kick 60 seconds rest 60 seconds, pater kick 45 seconds rest 45 seconds, pater kick 30 seconds rest 30 seconds, pater kick 15 seconds rest...
2. Running on the spot (use your arms)
Run 60 seconds rest 60 seconds, run 45 seconds rest 45 seconds, run 30 seconds rest 30 seconds, run 15 seconds rest...

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