

# BACK CARE



HEALTH  
PROMOTION  
UNIT

# BACKCARE

The assistance of the Arthritis Foundation of Ireland  
Association of Occupational Therapists of Ireland  
Health and Safety Authority  
Irish Society of Chartered Physiotherapy  
National Irish Safety Organisation  
Occupational Health Nurses Section of the  
Irish Nurses Organisation in the revision  
of this booklet is acknowledged.





## TABLE OF CONTENTS

4	Introduction
6	Structure and Functions of the Spine
9	Types of Back Pain
13	Prevention of Back Pain
21	General Prevention of Back Pain
30	Back Care in the Home
35	Back Care for Children
39	Summary

## INTRODUCTION

Back pain affects about 80% of the population in Western countries and sadly the indications are that it would seem to be on the increase. Why is this? With advanced technology and improvements in working methods, we should expect to have fewer physical complaints. This is not so.

The human body was built for movement, for physical activity, with speed and precision being important factors. Children born today are the same and have the same physical equipment as did our pre-historic ancestors. Our ancestors chased after animals for meat, climbed trees for fruit, walked miles in search of grain, in other words they were extremely active. Later when they domesticated the wild animals and cultivated fruit and grain they were still very mobile because all work was done by hand. Squatting was the position of choice, not only for rest, but also for tool making - our first industry.

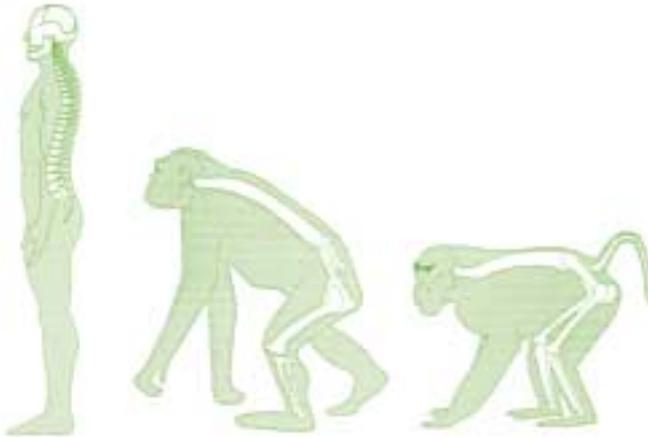
Thus the facility for movement was utilised to the full. Mobility in all joints was maintained and the stronger muscles were used in the work for which they were intended, that is to propel the body in any direction and lift whatever weight that was required to be carried.

When our development is traced through the ages, it is noticed that we have carefully and methodically engineered our own physical ruin. Technology has been to our benefit but the changes brought about have created problems. We have failed to adapt adequately to those changes through a diminished range of mobility.

Although we are without any documentation about the physical wellbeing of our early ancestors, we can learn much from studying primitive tribes in today's world. For instance the Aborigines in Australia suffer very little from back pain and it is noted that the low back curve in this tribe is less marked than in Europeans. African tribes also reveal a very low incidence of slipped disc and are seen to have an ample range of movement in the joints of the lower back. Therefore, greater mobility and physical fitness through manual labour is in fact what rewards underdeveloped peoples' in terms of freedom from back pain.

This concept forms the background to preventative measures on which this book is based.

### SPINAL CURVES



Man structured to be on all fours.

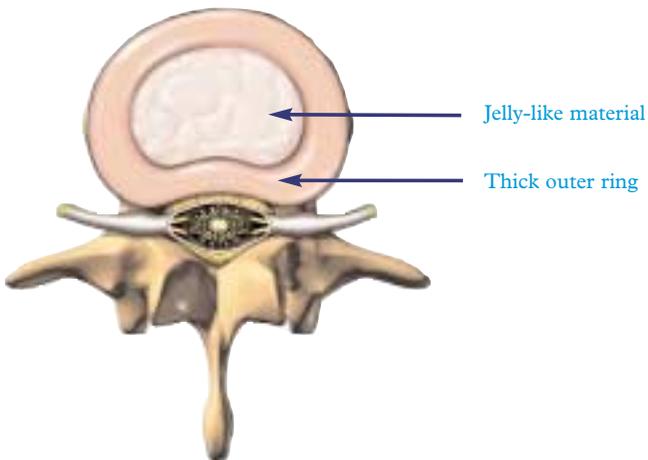
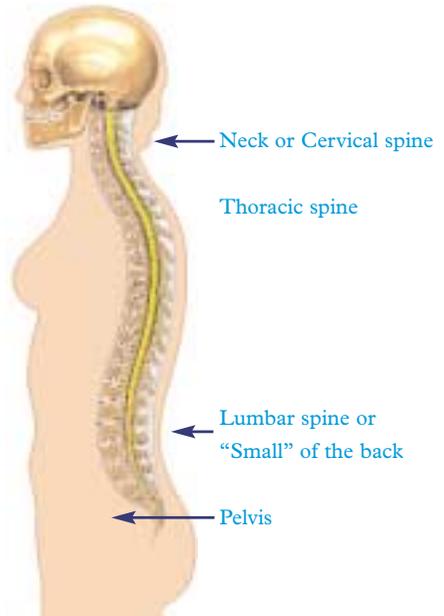
Never adapted to upright position and consequently formed a low back curve when standing.

## STRUCTURE AND FUNCTIONS OF THE SPINE

### STRUCTURE

The spine is made up of a column of bones called vertebrae, topped by the skull and based on the pelvis.

Between the vertebrae is a disc which cushions shock. The disc is made up of an outer ring of cartilage and a jelly-like centre.

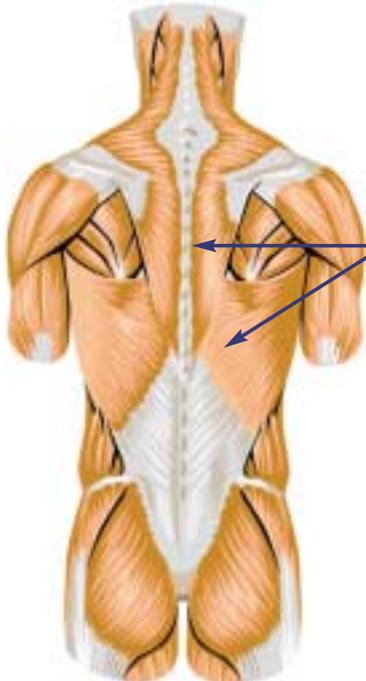


## STRUCTURE AND FUNCTIONS OF THE SPINE



Moveable Joints

At the back of the spine are small joints which are responsible for movement between the vertebrae. These are held together by ligaments. (see page 11).



Muscles

The spine is strengthened and made moveable by muscles.

This structure changes your back from a rigid rod into a moveable spine.

## STRUCTURE AND FUNCTIONS OF THE SPINE

### FUNCTIONS

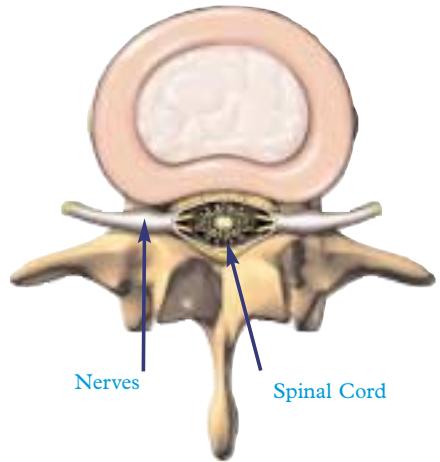
The spine carries the weight of the top half of the body and transfers it to the pelvis. In addition it carries any load being moved or handled.

#### *Protection*

The spine includes the spinal canal which is a protective channel for the spinal cord.

The cord is connected directly to the brain.

Nerves emerge from the cord between the vertebrae and these control the movement of the trunk, arms and legs, and convey all sensations.



Discs cushioned between the vertebrae, bound by ligaments and muscles, allow movement and flexibility. Without discs the spine would be like a bamboo and we could not bend forward, backward, sideways or look behind us.

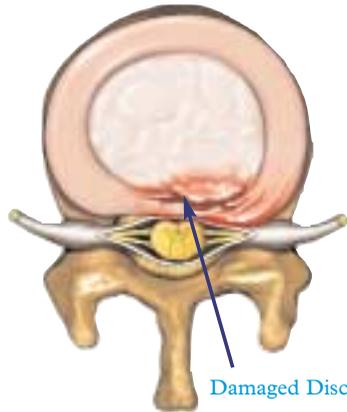
## TYPES OF BACK PAIN

There are over 100 accepted causes of low-back pain (or pain in the "small of the back"), with wear and tear being the most common cause of pain.

### MECHANICAL PROBLEMS

#### Slipped Disc (or prolapsed intervertebral disc):

This is caused when there is a weakness or tear in the outer ring of the disc allowing the jelly like centre to burst through.



Damaged Disc



Sciatic Pain  
Distribution

When this happens the contents of the disc will press on one of the nerves as it leaves the spinal canal causing pain to be felt elsewhere - for example Sciatica is caused by the disc pressing on the sciatic nerve.

## TYPES OF BACK PAIN

### WEAR AND TEAR

(Arthritis or Degenerative Disease)

Wear and Tear can affect the joints between the vertebrae as well as the moveable joints at the back of the spine. The cartilage or smooth covering of the joint becomes roughened and worn with spikes of bone growing out from the side of the joint. This prevents the joint from moving freely and leads to stiffness.

In conjunction with wear and tear the discs may become thinner and the spikes of bone may press on nerve roots as they leave the spinal canal causing pain or such sensations as pins and needles or numbness.

Wear and Tear changes in the spine can be noticed from as early as 25 years of age or even younger if there has been an earlier injury. However, many of these changes cause few problems and where they do they are often for only a short time.

There are a number of causes of backache due to excessive wear and tear - for example an earlier injury, heavy physical work over a long period, being overweight and lack of fitness.

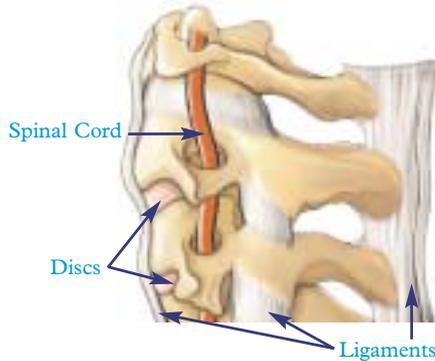
### Strained Muscles (Lumbago)

Muscles are strained by over loading. This is usually caused by a sudden or unexpected movement, like catching a falling object. Muscles are more easily strained if you are not fit, or do not warm up before taking physical exercise, or when muscles are tired.

## TYPES OF BACK PAIN

### Strained Ligaments

Ligaments prevent excessive movement in all joints including those of the spine. They can be injured when a joint is stretched to its limit and held there too long, or repeated too often.



### Internal Problems

Backache is not only caused by something being "wrong" with your "spine". Sometimes disorders of the internal organs can cause backache - for example kidney stones or injury to the kidneys, gall stones if they block the tubes of the gall bladder, gynaecological (or "female") problems, or shingles.

### EMOTIONAL PROBLEMS

Backache can sometimes be aggravated by emotional problems. Because of the interaction between mind and body, we need to be aware of the role of our emotions in the health of our backs. Many back problems are the result of, or made worse by, chronic daily stress. Under prolonged stress the body gives way eventually and the stress earns a new label - "back problem".

With depression, worry, anxiety, discontentment or unhappiness, normal aches and pains or unpleasant sensations become more obvious. Minor discomforts now become back pain.

## TYPES OF BACK PAIN

### OTHER CAUSES

Back pain can be caused by the following conditions:

Tumours, T.B., Congenital Abnormalities, Osteoporosis, Inflammatory conditions and so on.

These only account for 5% of all back pain.

### TREATMENT

If you have back pain you must seek professional advice. Only those qualified to do so, can tell you if the cause of your back pain is because there is something wrong with your spine, or if the pain is caused by something else, for example a disease or an emotional problem. Therefore, treatment without first having seen a health professional may make matters worse.

### IMPORTANT

An early visit to your health professional may help to prevent prolonged back pain.

### POSTURE

Good posture is any position which allows good use of the body for a specific task and is comfortable for as long as the position is held. Even though bad posture may not cause any discomfort, continual poor posture will in the long term cause back pain.

The curve (or "small") of the back is just above the pelvis. When standing, this curve is naturally present and varies from person to person. The curve, which is normally inwards, can be altered by changing the tilt of the pelvis. An increase in the curve for a prolonged time or frequently for shorter times causes pain.

For many of us, our lifestyle is not conducive to maintaining good posture. Our joints are not adequately flexible and our muscle strength is not in balance.

The best posture we can hope for in the upright position is where the ear is over the shoulder, hip, knee and ankle.

Most of us cannot achieve this alignment mainly because of tight hamstrings and tight upper lumbar spine coupled with weak tummy muscles.



## PREVENTION OF BACK PAIN

The function of the curves of the spine is to maintain balance and facilitate mobility. They are not structured to be load bearing. The best exercise to ensure they function well is long stride walking, making sure to straighten each knee as the opposite leg moves forward.

In summary, good posture is the most important way to preventing back pain.

### POSTURES

#### Standing

If you stand or walk a lot, low-heeled shoes are necessary to facilitate good posture.

To relieve strain on the back, when possible get one foot supported higher than the other. For example, when waiting for a bus, put your foot up on something and change from one foot to the other occasionally.

When standing in your workplace, place one foot on a ledge or a stool underneath your work surface to relieve pressure on your back.



## PREVENTION OF BACK PAIN

Another way to prevent back strain when standing is to have the working surface at the right level, this is half way between the wrist and waist when standing with your hands by your side.

### SITTING

Sit with your knees higher than your hips.

If necessary, use a foot rest. This ensures that the spine is resting in the optimum position

- Choose a chair that is the correct height for you.
- Sit in a chair with proper support for your lower back.
- Choose a chair with arm rests - not too high or not too low.
- Posture and sitting position are very important when working at a desk or table. Always ensure that:
  - You have a chair of correct height which supports your lower back. The best seat height allows your elbows to be about one inch above your desk.
  - Reading stands or V.D.U. equipment are flexible and adjustable, so that you do not have to bend over your desk or table.



(For further information, please consult the Guidelines on the Health and Safety of Office Workers, published by the Health & Safety Authority).

## PREVENTION OF BACK PAIN

### LYING

Have a firm bed. When you are lying down (whether on your back or on your side) bend your knees as this is the most relaxed position for your back. The pillow should support your neck and allow it to rest in a balanced position. A feather/fibre pillow is best because it conforms to the shape of your neck.



When getting up from lying - roll onto your side, use your arms to push up and let your legs out over the side of the bed.



### WHEN DRIVING

If your car seat is too deep (from front to back) and the back of the seat does not support you properly, fill the space with a small cushion or use a back rest. The best position for the back rest is in the upright.

## PREVENTION OF BACK PAIN

Seated properly, your knees should be higher than your hips - if this is not so, adjust the seat forward and for comfort's sake place a small cushion under your thighs.



If going regularly on long journeys it helps to stop and take a little exercise to relieve the stress of prolonged sitting.

When getting out of the car, swivel your whole body towards the door. Slide your feet onto the ground and stand up.

### HANDLING Lifting

Always follow these basic principles when lifting regardless of whether the object is heavy or light:

- Assess the task
  - Area
  - Load
- Bend the knees
- Broad stable base
- Back straight, though not necessarily vertical
- Firm Palmar Grip
- Arms in line with trunk
- Weight close to the centre of gravity
- Point feet in the direction of movement



## PREVENTION OF BACK PAIN

Apply the basic principles to five basic lifts:

Lifting to and from:

1. Floor
2. Bench
3. Height
4. Pulling
5. Pushing

If the load is too heavy - **GET HELP!** or use a mechanical aid e.g. a trolley.

### CARRYING

Use the same principles for carrying as you would for lifting but also remember that if you have a load to carry, balance your body by:

- Carrying two small loads rather than one large one, for example, always carry two small shopping bags rather than one large heavy bag.



## PREVENTION OF BACK PAIN

- If the load cannot be divided, hold it close to the body with a firm grip in both hands. Make sure that you can see over the load.



### Pushing and Pulling

When pulling or pushing - keep your back straight, although not necessarily vertical, bend at the hips and knees using your leg rather than your arm or back muscles to move the object.

Pushing is easier as you can easily see where you are going.



## PREVENTION OF BACK PAIN

### Reaching

If you must reach overhead - keep your knees slightly bent and tuck in your chin. If this is not possible, use a stool or a step. Reduce the weight to be lifted if lifting over waist level. Avoid over-extending.

### MANUAL HANDLING AT WORK

If your work involves lifting, putting down, pushing, pulling, carrying or moving a load which might involve a risk of back injury, the Manual Handling Section of The Safety, Health and Welfare at Work (general Application) Regulations, 1993 apply to your workplace. This is the responsibility of your employer and the legislation is enforced by the Health & Safety Authority.



## GENERAL PREVENTION OF BACK CARE

### FITNESS

Fitness is important in the prevention of back pain. There are four aspects to physical fitness:

**Cardiovascular or Aerobic Capacity:** It is a definite advantage to train the heart to pump blood efficiently and without effort.

**Strength:** Muscle strength means that more muscle fibres are primed to work. Strength is increased by high loading, low repetition exercise.

**Endurance:** Means that muscle fibres work in a relay system. When energy of some fibres is spent, others take over. Endurance is increased by low loading, high repetition exercises.

**Flexibility:** This is particularly important in backcare and in particular, the safe performance of handling skills. The human frame is built to perform in a certain way, but the soft tissue structures viz: muscles, tendons, ligaments etc. will become shortened when their potential range is not realised or maintained.

Appropriate flexibility will allow us to get into a safe position for activity, so our body structure can be utilised in the way it was intended i.e. with the limbs doing the work and the trunk protecting the vital organs.

Everybody, regardless of age or stiffness, can learn to stretch and doing exercises should become a way of life. The following exercises will benefit safe physical performance and can be done at any time.

## GENERAL PREVENTION OF BACK CARE

Muscles are stretched so they are lengthened to their normal range of mobility. This range is determined by the structure of the joints over which they pass. Exercises must be done slowly. Sudden jerky movement into pain is not only ineffective but may seriously damage tissue.

### METHOD

Take up position where tension is felt and hold for ten seconds to allow tissues adjust to the position. It is important to go to the point of mild tension. As the tissues adjust, the tension subsides. If not, ease back to where tension is comfortable. This is the easy stretch. When tension has eased, move slowly into the developmental stretch where tension is felt again. It is this phase that increases flexibility. Breathing should be slow, rhythmical and controlled.

NEVER BOUNCE OR JERK

## GENERAL PREVENTION OF BACK CARE

### EXERCISES

#### 1. Lower Lumbar Spine

Starting Position: Lie on your back with your knees bent up and feet flat on the floor.

Bring both knees up towards your chest. Place both hands around your knees and gently but firmly pull the knees as close to your chest as you can. When you feel tension, hold for ten seconds. Pull a little further and hold for ten seconds. Return to the starting position. Relax. Repeat the stretch 5 -10 times.



#### 2. Upper Lumbar Spine

Starting Position: Lie on your back with your knees bent up and feet flat on the floor.

Bring both knees up towards your chest. Place both hands around your knees and gently but firmly pull the knees as close to your chest as you can. Next, raise your head and shoulders towards your knees. When you feel a little tension, hold for 10 seconds. Pull a little further and hold for 10 seconds.

**Return your head to the starting position while still holding your knees.** Relax. Repeat the stretch 5 -10 times.



## GENERAL PREVENTION OF BACK CARE

### 3. Hamstring - Lower End

Starting Position: Stand, half sitting with one leg along a bench or table. Your knee should be straight and your hands behind your back.

Lean forward at the hip joint, keeping your back straight. When you feel tension behind your knee, hold for 10 seconds. Move forward at the hip a little further and hold for a further 10 seconds. Return to the starting position and repeat with the other leg. Do the exercise 5 - 10 times.



### 4. Hamstring - Upper end

Starting Position: Lie on the floor with both knees straight.

Bend one knee onto your chest, pulling with your hands placed underneath your knee. Anchor your knee towards the shoulder of the same side, then attempt to straighten your knee joint.

When you feel tension on the back of your upper thigh, hold for 10 seconds. Straighten the knee a little further and hold for another 10 seconds. Return to the starting position and repeat with the other leg. Do the exercise 5 -10 times.



## GENERAL PREVENTION OF BACK CARE

### 5. Calf Stretches - Lower End

Starting Position: Stand in front of a bench or table with your feet apart and inner borders parallel.

Bend your knees, keeping your heels on the floor and direct your knee over your middle toe. When you feel the tension above your ankle hold for 10 seconds. Bend further and hold for a further 10 seconds. Return to the starting position. Relax. Repeat the stretch 5 - 10 times.



### 6. Calf Stretches - Upper End

Starting Position: Stand in front of a bench or table with your feet apart and inner borders parallel.

Lean your body weight forward, keeping your heels on the floor and trunk and legs in a straight line. When you feel the tension below and behind your knee hold for 10 seconds. Lean further forward and hold for a further 10 seconds. Return to the starting position. Relax. Repeat the stretch 5 - 10 times.



## GENERAL PREVENTION OF BACK CARE

### 7. Ileo-Psoas/Quadriceps

Starting Position: Kneel on the floor and sit back on your heels.

Place your hands on the floor underneath the shoulders.

Thrust your hips forward raising your seat from your heels. When you feel tension, hold for ten seconds.

Return to starting position.

Relax. repeat the stretch 5 - 10 times.



### 8. Trunk Rotators

Starting Position: Sit on the floor with one leg crossed over the other and your foot by your knee.

Turn to the side of the bent knee and aim to get your shoulders approximately 90° to your hips. When you feel tension hold for 10 seconds.

Pull a little further and hold for 10 seconds. Return to starting position. Relax. Repeat the stretch 5 -10 times.



## GENERAL PREVENTION OF BACK CARE

### 9. Abdominal Strengthening Exercises

A. Starting Position: Lie on the floor with both knees bent and arms off the floor but parallel to it.

Lift your head and shoulders towards your knees as far as possible without lifting the small of your back off the floor.

Hold for a couple of seconds.

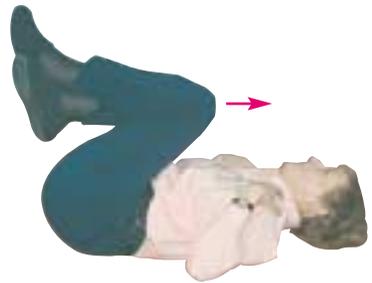
Ease the hold - but don't let your head and shoulders move more than 1/16th of an inch. Repeat in triple slow time to reach 25 repetitions. If this causes discomfort in your neck place one hand behind your head.



B. Starting Position: Lie on the floor with both knees bent, ankles crossed and your finger tips resting on your shoulders.

Raise your knees towards your shoulders and feel the hip bones move towards your ribs. Ease the

hold - but don't let your head and shoulders move more than 1/16th of an inch. Repeat in triple slow time to reach 25 repetitions.



## GENERAL PREVENTION OF BACK CARE

### 10. Quadriceps Endurance Exercise

Starting Position: Sit by the wall with your feet thigh distance from the wall and your knees at 90°.

Count in triple slow time and take note of the number you reach when you could not possibly go any further.

Rest for a couple of minutes and repeat. This exercise should be done once daily increasing your count by 2 - 3 every other day until you can hold the position for a minute.



### WEIGHT CONTROL

Being overweight prevents us using the body in the most efficient manner. In addition to increasing the load on weight bearing joints, it also causes us to carry loads on joints not designed for that purpose. Increased weight usually increases the low back curve which in turn increases the wear and tear on the small joints of the spine. (see page 14).

## GENERAL PREVENTION OF BACK CARE

### OSTEOPOROSIS

Osteoporosis is a condition which very often only becomes evident in later life. However, the condition is caused much earlier in life and can be largely preventable.

Osteoporosis is characterised by a loss of bone mineral density, and demineralisation of the bone, which in turn may increase the risk of back pain and fractures.

Adequate diet with calcium intake combined with exercise are the means of prevention. However, over-training in female athletes may also cause the condition.

A person's maximum bone density is achieved by the age of 25 -30 years. If a person is deficient at this time, it is unlikely that they will regain this bone mineral density later.

People at greatest risk of developing osteoporosis later in life are those who have Eating Disorders and those who lead sedentary lives.

## BACK CARE IN THE HOME

Running a home involves lifting, carrying, bending, pulling, pushing and working at different levels. Constantly performing these activities incorrectly can cause back pain.

Plan worktops and cupboard space efficiently so that utensils are easily at hand.

### POSTURES

#### Standing

As so many household activities are done standing, it is very important to have the worktops at the correct height - this is midway between the wrist and the waist when standing with the arms by the side. Remember, kitchens today can be made to measure.

When the worktop is too low, unnecessary strain is not only put on the lower back, but also on the neck, shoulders and arms.

The ideal working conditions are not always possible, however, the working area can be adapted with imagination, for example:

- If the kitchen sink is too low, place an upturned basin in the sink and place the washing bowl on the top.
- Remember the ironing board is adjustable - why not sit?

As so much time is spent standing, careful attention should be given to footwear - bedroom slippers should never be worn all day, however, a one inch to one and a half inch heel is the most suitable.

To rest your back while working in a standing position, place one foot on a step or open a cupboard and place one foot on the shelf inside the door.

Never stand if you can sit, for example ironing, preparing vegetables, mixing cakes and so on.

### Sitting

A high stool is a must in a kitchen. If the task does not allow you to sit on a chair, using a high stool allows you to put your back into a better position.

### Lifting

Always apply the principles of lifting as given on page 17 of this book.

Where possible avoid lifting objects from the floor, for example place the empty washing basket on a chair before filling it and so avoid unnecessary bending.

The same principles apply when lifting from chair or worktop.

### Carrying

Use the same basic principles. (see page 18).

### Lifting To and From a Height

When reaching to a height, keep your knees slightly bent. Rather than reaching overhead, use a set of firm steps.

## BACK CARE IN THE HOME

### Pulling and Pushing

Use same basic principles. (see page 19).

When pulling or pushing, for example when moving furniture, keep your back straight although not necessarily vertical.

### EVERYDAY ACTIVITIES

There are many everyday activities that need special attention, for example:

#### Shopping

Shopping poses many back problems such as filling the shopping trolley, lifting shopping bags from the check-out to the trolley and then from the trolley to the boot of the car or carrying the shopping to the bus.

- Divide the load between both hands.
- If using your own shopping bag on wheels, keep it close to your body to avoid unnecessary twisting.
- If you have a car and it has a deep boot, divide your shopping, rest the load on the edge of the boot and then lower it in by bending the knees, while keeping a broad base.

### Bed Making

Bend your knees, when tucking in the bed.



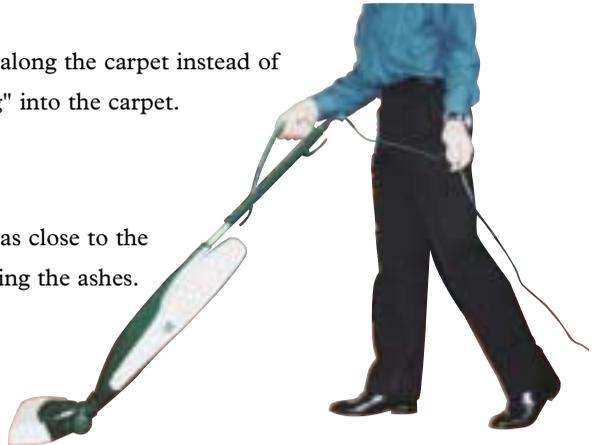
### Laundry

When filling and emptying a front loading machine or dryer - take care to bend the knees and change direction by moving your feet.

### Vacuum Cleaning

Remember these two principles when vacuum cleaning:

- Relax your knees and keep your feet apart. This will mean that your legs are doing the work and not your back.
- Slide the vacuum cleaner along the carpet instead of pressing down or "digging" into the carpet.



### Cleaning out the Fire Grate

Kneel on both knees and get as close to the grate as possible when removing the ashes.

## BACK CARE IN THE HOME

### Lifting the Bin

The standard bin should be lifted by two people. If two people are not available, use a smaller bin and apply the principles for lifting. (see page 17).

### Children in the Home

- When using a bath to bathe a baby, always kneel.
- Stop carrying the baby in a front sling as soon as head control is good. Then carry it in a back pack.
- Choose a buggy that is light, easy to fold and has a high handle.
- Bend your knees to lift the child from the floor.
- Choose a cot with a drop-down side to make it easier to lift the child in and out.



## PREGNANCY

All the foregoing principles of back care apply, as pregnancy invariably causes backache, especially in the later months.

More care must be taken to avoid extra strain on the lower back during this time.

Additional information may be obtained from your doctor or maternity hospital.

For further information please consult the Pregnant at Work booklet published by the Health and Safety Authority.

If your posture is good, you look good and feel good. To prevent Postural Problems in later life, it is essential to instill in children the practice of good posture.

You, as a parent or teacher, have a responsible role to play in this aspect of education.

Prevention is better than cure and proper training in these formative years can offset much pain and physical discomfort in adult life.

Persistent back pain in children should be investigated.

### POSTURE

#### Standing

The feet are the key to good posture in standing, so watch out for:

- All young children have flat feet and this usually corrects as the child develops. However, if this persists and is very extreme and causes worry for parents, consult a health professional.
- A Scoliosis (curve to the side) can be easily detected if:
  - The hands do not fall easily to the side
  - One shoulder may be seen to be raised or
  - Carried slightly in front of the other
- Round shoulders are a common complaint in children and are usually accompanied by a poking chin.

It is important to look at the child's overall stance and encourage good posture.

## BACK CARE FOR CHILDREN

### Sitting Posture

Since children's growth rates are not standard, desks and chairs of different heights should be available - for example, small, medium and large.

A correct sitting position allows the child to have his/her feet on the ground, knees slightly higher than the hips and the lower back supported when sitting upright. Shoulders should be held down with head and chin in.

The height of the desk should allow the child to write with the angle of the elbow at 90 degrees plus.

### WALKING

Watch for the following in a child's walk:

- In-toeing and out-toeing
- Scissors gait (walk), that is one foot crossing in front of the other.
- A waddling walk
- Overswinging of the arms
- Limp

If the child's posture does not improve on any of the above points with encouragement, refer the child to a health professional.

## BACK CARE FOR CHILDREN

### LYING

The most common cause of back ache in children or adolescence is sleeping face down and usually on a soft bed.

Encourage the child to lie on his side with one or both knees bent in front. Lying on the back with the knees bent is equally as good and a firm bed is very important.

### LIFTING

Young Children automatically squat, for example, when picking up toys. This is the ideal and should be encouraged as the child gets older. Older children should be encouraged to use the basic principles for lifting as stated on page 17.

## BACK CARE FOR CHILDREN

### RECREATION

Recreational activities should incorporate full body movement and can be ensured by participating in a wide variety of games.

While gymnastics are to be encouraged, the exercise of toe-touching in a standing position should be avoided because:

- It does not come naturally in this part of the world.
- It overstretches ligaments and tendons in the back and only marginally stretches the hamstrings.
- Returning to the upright position, puts undue strain on the muscles of the back and predisposes to a slipped disc.

*(The following is an abridged version of the Midland Health Board's leaflet on School Bags).*

### SCHOOLBAGS

Most children carry their schoolbags incorrectly. Carrying a heavy load incorrectly, adds extra strain to the back and may result in back pain in later life. The aim when carrying a heavy bag is to achieve balance across the shoulders and hips. This means that the child's posture is distorted as little as possible and the load is distributed equally.

- A well fitting backpack/rucksack with hip straps is ideally suited for carrying the heaviest load.
- Rucksacks and backpacks should be worn over both shoulders with hip straps closed across the waist.
- Rather than one very heavy bag with one hand, children should carry two smaller loads - one in each hand.

### YOU PLAY THE BIGGEST PART IN HELPING TO PREVENT BACK PROBLEMS.

Be aware of your posture at all times no matter what you are doing and be responsible for adapting your work and leisure positions and your furniture to suit your back where possible.

### POSITIVE GUIDE TO BACK CARE

#### Pay attention to your posture

- Choose a chair or seat that gives firm support to your spine, especially the small of your back, whether you are sitting at home or driving the car.
- Use a firm bed. What is underneath is more important than the mattress itself. Adopt a good sleeping position.
- Make sure your working surfaces are at the correct height when either sitting or standing.
- If you must lift, lift as instructed on page 17 of this book.
- Divide the load when carrying, or if possible use a trolley.
- Keep your own bodyweight under control. Make sure you get a reasonable amount of exercise every day.
- Be aware of safety as falls or sudden jolts may damage your back.

Remember, most back pain need never occur if you take sensible precautions against it. Not all backpain is serious.

## USEFUL PUBLICATIONS

There are a number of publications (published by the Health and Safety Authority, 10 Hogan Place, Dublin 2 - Tel. 6147000) which detail the guidelines regarding care of the back in several settings:

Safety, Health and Welfare at Work (General Application) Regulations, 1993 and Guidelines

Handle with Care - Safe Manual Handling

Guidelines on the Health & Safety of Office Workers

Caring with Minimal Lifting - A Safety & Health Guide for those who care for Patients.

Stay Safe on Site

Pregnant at Work - A Guide to the Safety Health & Welfare (Pregnant Employees etc) Regulations, 1994.

Farm Safety Handbook

VDU Regulations - An easy Guide for Employees



The Health Promotion Unit, Department of Health & Children,  
Hawkins House, Dublin 2. Tel: (01) 635 4000  
[www.healthpromotion.ie](http://www.healthpromotion.ie)

ISBN 0 856387 038 4

03/01