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# Pregnancy and osteoporosis

## What is osteoporosis?

Osteoporosis literally means 'porous bones'. It occurs when the struts which make up the mesh-like structure within bones become thin causing bones to become fragile and break easily following a minor bump or fall. These broken bones are often referred to as fragility fractures. The terms 'fractures' and 'broken bones' mean the same thing. Although fractures can occur in different parts of the body, the wrists, hips and spine are most commonly affected. It is these broken bones or fractures which can lead to the pain associated with osteoporosis. Spinal fractures can also cause loss of height and curvature of the spine.



**Strong  
dense  
bone**



**Fragile  
osteoporotic  
bone**

## Coping with broken bones during or after pregnancy

This leaflet is for women with a rare condition called osteoporosis associated with pregnancy. It is not for women who have a low bone density for reasons such as anorexia nervosa or other conditions and are pregnant. Osteoporosis associated with pregnancy is a very unusual situation when bones break suddenly or severe pain occurs during or soon after pregnancy in otherwise apparently healthy women. Having a baby should be a joyous time and this leaflet can help to provide information to help you move forward and enjoy your new baby.

Osteoporosis associated with pregnancy is a rare condition when bones break (fracture) easily, usually in the spine, or occasionally the hip, around the time a woman is giving birth, causing pain and disability. These broken bones heal in the normal way and usually women recover and return to their previous quality of life.



This leaflet covers specific information on osteoporosis associated with pregnancy. If you would like more general information on osteoporosis, please ask us for a copy of our publication *All About Osteoporosis*.



**Eating a healthy diet is essential for bone building.**

However, when bones break it can be frightening and confusing for the women affected, and their families. If pregnancy-associated osteoporosis has affected you, then you may have a number of questions in your mind. Why did my bones lose strength and break? Should I have a medical treatment? Can I have more babies? Should I breastfeed? How can I prevent this happening in another pregnancy? Will I be affected by osteoporosis and fractures when I am older? This leaflet will try to answer these questions for you.

The National Osteoporosis Society is concerned that women with this unusual condition are failing to receive the help they need. The medical world only recognised pregnancy-associated osteoporosis in the 1950s and very few cases are reported in medical literature. In 1992, the National Osteoporosis Society brought together mothers who had experienced this problem with doctors and specialists in the field for a special conference that generated considerable media coverage. Since then, women have contacted the Society for information and support.

A lot of the questions about pregnancy-associated osteoporosis still remain

unanswered although research, some funded by the National Osteoporosis Society, continues to address issues relating to what happens to bones in normal pregnancy and to the skeletons of women who break bones easily at this time. Diagnosis and the management of these fractures nearly always takes place after a woman has given birth so the information given in this leaflet about exercises and possible drug treatments are not intended for pregnant women but for the weeks following the baby's birth.

### **What happens to bones during a woman's life?**

Most women's skeletons are increasing in density and strength throughout their early years and into their 20s. Bone-builders include eating a healthy diet, reducing alcohol consumption, trying to stop smoking and taking part in weight-bearing exercise at least three times a week. Bones reach their maximum strength (peak bone mass) at around the age of 30, and after the age of 35 the amount of bone starts to gradually decrease as a normal part of ageing. Women lose bone more rapidly for a number of years after the menopause when their ovaries produce lower levels of the hormone oestrogen, with bone loss and risks of fracture increasing into old age.

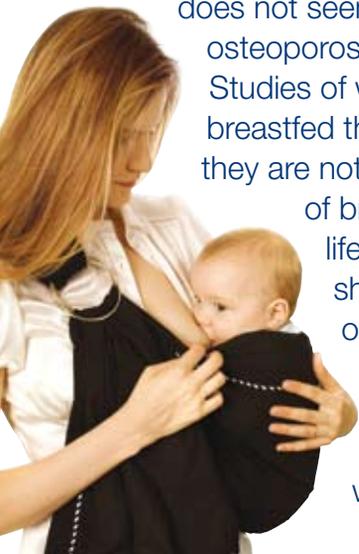
# What is osteoporosis associated with pregnancy?

## What happens during a normal pregnancy?

Studies have shown that bone density decreases in the later part of routine pregnancies but returns to normal in the months following birth. Although the growing baby requires calcium from its mother, a woman's body has its own way of regulating itself so that her own skeleton still gets sufficient calcium.

Bone density is also known to drop while a woman breastfeeds but returns to normal when the baby is weaned. Oestrogen levels are generally high, especially in later pregnancy, although they drop during a period of breastfeeding and another hormone called prolactin is raised. Breastfeeding

does not seem to increase risks of osteoporosis in the long-term. Studies of women who have breastfed their babies show they are not at an increased risk of breaking a hip in later life. In fact, one study showed a decreased risk of having a broken hip generally in women who breastfed. The reasons for this were unclear.



## What causes some women to break bones around the time of pregnancy?

It is not clear why some women suddenly develop fragile skeletons at the time of pregnancy. Various explanations have been put forward. One is that pregnancy triggers a sudden unusual reaction in a normal skeleton; another is that a woman starts off with a low peak bone mass (thin bones) or another bone disease, and normal bone loss in pregnancy causes further bone thinning and results in broken bones.

However, research has so far failed to provide clear answers. Women with osteoporotic fractures associated with pregnancy seem to regulate calcium and hormone levels in their bodies (although this may be a problem in a few pregnancies) and they do not seem to have any underlying bone disease such as osteogenesis imperfecta. It has not been shown in research studies that having low bone density prior to pregnancy will result in faster bone loss or fractures during or after pregnancy.

Osteoporotic fractures associated with pregnancy are sometimes described as 'idiopathic', meaning no cause has yet been discovered.

Osteogenesis imperfecta (brittle bones) is a bone disease some people are born with when the protein in bone (collagen) does not develop properly.

### **Are there any drugs that I am taking which may have caused my osteoporosis associated with pregnancy?**

Some women need to take heparin (given by injection under the skin) to thin their blood during pregnancy. This is usually because of a condition called anti-phospholipid antibody syndrome and without heparin there are risks that their baby would not survive. Some research showed that heparin increased risks of osteoporosis and possibly broken bones, and that this might be an underlying cause of this condition. Other recent research found that there was no clear link and that any bone loss was reversible and fractures were rare. Therefore, it seems unlikely that the drug significantly increases the risk of fractures for women generally or that it is the cause of osteoporosis associated with pregnancy in most cases.

### **How do broken bones affect women with osteoporosis associated with pregnancy?**

Osteoporotic fractures associated with pregnancy, though rare, seem to be most common in first pregnancies although some women have experienced fractures in second or third pregnancies after a normal first pregnancy. Commonly, bones seem to break when a woman gives birth or up to eight to twelve weeks following delivery.

There does not seem to be one particular age when women are more at risk. Women in the research studies have been of varying ages – in one study of 13 women, their ages ranged from 23 to 37 years.

Low bone density and changes in the structure of bone are not thought to cause pain. It is the broken bones that can be painful. Sometimes, pain is sudden and severe or it may come on gradually. Spinal fractures, when the vertebrae change shape to become compressed or wedge-shaped, are the most common for women who fracture in pregnancy although sometimes a broken hip occurs.

Many women experience back pain in pregnancy, due to changes in the ligaments and altered stresses on the spine and pelvis, but this is very rarely because of broken bones. However, when fractures do occur the pain can be so acute that everyday living is severely affected. Some women notice a change in posture or a loss of height and they often say they have lost their 'waistline'. Even when healed, spinal bones do not go back to their previous shape and women say that the impact that this loss of height and curvature has on body image can be disturbing.

## CASE STUDY

### Marjorie



I was 27 when I had my first baby and began to have back pains when I was breastfeeding. One day, five weeks after the birth, I collapsed on the floor with knife-like pains down the

length of my spine. It was extremely frightening and painful. I was soon in hospital diagnosed with osteoporosis of the spine. I had two impacted vertebrae at the bottom of my spine. The worst part was if I moved quickly, or even laughed, my back muscles went into violent spasms. I had bad backache at night for four years but for me, learning yoga completely stopped the pain.

During my third pregnancy, I slipped in the snow three weeks before the baby was due and fractured my hip. It was a difficult fracture and took a long time to heal. It was six months before the crutches became redundant but there were no after effects at all so I feel extremely lucky. I now live a normal life. I walk briskly, cycle, horse-ride and am still working full time in a plant nursery. I am taking HRT – I do not know if it helps with this type of osteoporosis or not. I've had falls and, last year, I fell off a horse but I escaped with nothing but bruises. I have tried to understand what caused my osteoporosis but no one has come up with an answer.

Having a new baby is very exciting but for any woman this is a challenging time. For women with osteoporotic fractures who are faced with intense pain and suddenly find their ability to cope significantly reduced, the experience can be upsetting. Some find the loss of independence distressing and feel inadequate or guilty about not managing to care for their baby. These feelings may be made worse if no explanations are given or the diagnosis has been delayed.

**The good news is that fractures heal and bone density improves. Although women with osteoporotic fractures associated with pregnancy may experience severe pain and difficulties in coping with their baby, most return to a fit, active and healthy life.**



## Can osteoporosis be painful if I have not broken a bone?

Sometimes osteoporosis associated with pregnancy takes the form of something called transient osteoporosis (it goes away) or migratory osteoporosis (it sometimes moves to other areas such as another joint). This is sometimes referred to as localised osteoporosis and is quite a different form of osteoporosis associated with pregnancy than the spinal osteoporosis described earlier.

Problems occur during pregnancy rather than after the baby is born, with pain usually experienced after the 20th week of pregnancy. Severe pain affects the hip joint, and makes walking very difficult but often there appears to be no fracture. The reason for this intense pain is not clear because low bone density in itself is not thought to be painful. There appears to be rapid bone density loss but symptoms will spontaneously improve usually two to nine months after the baby is born. This type of osteoporosis has been found in pregnant women as well as middle-aged men.

One possibility is that micro-fractures, not apparent on x-ray, cause the pain but this has not been proved. Sometimes this type of osteoporosis does reoccur with, for instance, a painful hip occurring again in a following pregnancy. In some situations a woman does actually experience a fracture of the hip.

### CASE STUDY

#### Kate



As a district nurse I knew something was wrong when I started to suffer hip pain in the 30th week of my pregnancy and found it difficult to walk or bend. When I gave birth I actually fractured my left hip during delivery.

I was in severe pain, which was dismissed by everyone at first. Then a day later it was obvious that something was wrong. It was decided that I needed an x-ray and the fracture was diagnosed. I was on crutches for 18 months but with lots of physiotherapy and, because I suppose I was so determined, I got back to nursing again. I am now still affected by a slight limp but otherwise my life is back to normal.

It is puzzling knowing that I will go into the menopause in the near future and I do not really know if I am more at risk of fracture because of what has happened to me.

## Being diagnosed with osteoporosis associated with pregnancy

Osteoporotic fractures associated with pregnancy are rare and often go unrecognised. Back pain in pregnancy for other reasons is very common and doctors are reluctant to use x-rays during pregnancy because this will expose the baby to radiation. Therefore, little progress towards diagnosis is usually made until after the baby is born.

If severe pain continues after you have given birth, you may need to persevere to find out what is wrong. If your own doctor is unfamiliar with osteoporosis associated with pregnancy, it may help to show them this leaflet.

The following investigations may be useful if osteoporosis associated with pregnancy is suspected. Your doctor may decide that one or more tests are appropriate.



- X-rays will show if bones are broken. Changes in the x-ray image may suggest that a bone is 'thin' but cannot give a precise measurement of bone density or explain pain in the absence of a fracture.
- Bone density scanning (DXA) will give some information about bone strength. If the result falls significantly below what would be expected, this confirms osteoporosis. This scan is very low in the amount of radiation it gives but scans will still usually be avoided in pregnancy. (For more information see our leaflet *Scans and tests in osteoporosis*.)
- Blood tests may be needed to confirm you do not have an underlying health problem which may have caused osteoporosis.
- A radioisotope scan will show up 'hot spots' in the body where there may be fractures.
- MRI (magnetic resonance imaging) does not involve x-rays. It is used to look at soft tissue such as the discs (shock absorbers) between the spinal bones. Sometimes, damage to discs can cause pain. This is not osteoporosis.

# Coping with the pain of osteoporosis associated with pregnancy



- Other types of scanning might be offered such as ultrasound to measure bone strength or DXA (bone density) scans of the heel or forearm. These are new techniques and, although they may be useful in the future as a way of identifying who might break bones, they have not yet been proven as useful for younger women.

These tests help your doctor to understand if fractures are causing your pain and, if so, whether osteoporosis is the reason they have occurred. If osteoporosis is diagnosed, this does not mean the fractures are any more serious or will not heal. For most women, fractures do not keep occurring and they do get better.



## What will help with the problems of broken bones and pain?

### Drug treatments

Spinal fractures are most painful for the first six weeks or so until healing has taken place. You may be forced to rest at first if pain is severe but being immobile for a length of time is not helpful and can bring other problems such as muscle weakness and blood clots. This is why it is so important to get adequate pain relief.

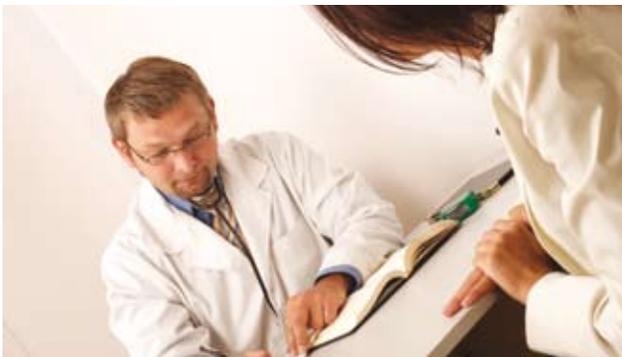
You will probably need to take strong painkillers if pain is severe. Many women feel anxious about taking tablets if they are breastfeeding but until the pain is under control you are unlikely to feel able to begin to cope. Many drugs do not seem to affect the baby so seek advice from your doctors about which ones are suitable.

Calcitonin is an osteoporosis drug given by injection or nasal spray that is sometimes used on a short-term basis to help with the pain of a spinal fracture although not all women find this helpful. Some women say it makes them feel unwell and you may experience side effects such as nausea, flushing (especially after the injection) and an unpleasant taste in your mouth.



## Other ways to reduce pain

Practical methods can also help with pain such as hydrotherapy (exercising in a special pool which is warmed) with guidance from a physiotherapist or using a TENS machine (this is a tiny machine with pad attachments, which can be clipped on to the waistband; it blocks out pain by stimulating nerves on the skin's surface). Sometimes physiotherapists lend these out. Complementary therapies, such as acupuncture, can be useful. Heat pads or icepacks are comforting but need to be used carefully so that the skin is not burned.



If pain goes on without relief then your doctor may refer you to a specialist pain management clinic, although this is not usually necessary.

## Do I need an operation or special splints or corsets if I have broken bones?

If you break your wrist or other bones, you may need a plaster or splint for a number of weeks to reduce movement and help the bones to heal. Sometimes an operation is needed to pin the bones together or to replace the end of a bone that cannot be repaired. This is what happens when a hip replacement is carried out after someone breaks their hip.

If you have broken a bone in your spine (vertebral fracture) then there is no need for an operation. The bone heals itself over a number of weeks and resting or keeping still will not help healing or recovery.

Corsets are not generally recommended except on a short-term basis to help with pain. Long-term use can increase muscle weakness and cause further discomfort.

Try not to let pain get you down. It can be a long process but women who have experienced pregnancy-associated osteoporosis report that the pain does get better.

# Exercises

## What exercises are appropriate to help with pain and recovery after spinal fractures?

Healed spinal bones do not go back to their original shape so pain can go on for longer because of muscle spasm and ligament strain. Gently increasing exercise levels is the best way to go about getting back to normal and increasing muscle strength can help to support the spine and reduce pain.

These exercises are not for pregnant women but are appropriate following spinal fractures, which would usually be diagnosed and treated after the baby is born.

These breathing and relaxation exercises can help you to cope with pain and are also a useful 'warm up' before going on to other exercises.

### Breathing

Good breathing habits and correct posture are important for everyone, particularly people with osteoporosis who have lost height, because this means the lungs will have more room to expand. Good posture, shoulder suppleness and strong back muscles will also help. Make sure you do not have a tight waist band. Stand or sit tall. Breathe into the bottom of your lungs with relaxed shoulders.

Lavender has been used for centuries as a herbal remedy to aid relaxation.



- 1 Put your hands on the sides of your rib cage. Slowly take a deep breath in; you should feel your hands moving as the ribs move upwards and outwards. As you breathe out, you should feel your hands moving as the ribs move inwards and downwards.
- 2 Put one hand on your abdomen just below your waist. Breathe in again; you should feel your abdomen move out towards your hand. Repeat no more than four times with a pause between each breath so that you do not make yourself dizzy.

### Relaxation

You may find it useful, particularly if you are in a lot of pain, to learn how to relax. It is easy to get into a vicious cycle of pain, tight muscles, stiffness and yet more pain.

- Make sure you will not be disturbed. Put on some gentle music and burn aromatherapy oils or candles, like lavender which is known for its relaxing properties. There are also commercially prepared tapes on relaxation available from high street stationers. Make sure you will be warm enough throughout.
- Lie down on the bed in a comfortable position or recline in a comfortable chair. Use plenty of cushions for support and put one between your thighs.

If you find it hard to relax, this approach may work for you. First learn how to feel when your muscles are tense and when they are relaxed. Do this by first stretching them, holding for a second and then letting go completely. Work through your body bit by bit, stretching and then relaxing each big group of muscles.

- 1 Start with your feet. Stretch out your toes and legs, hold for a second and then let go completely.**
  - 2 Let your knees roll gently out, hold and let go.**
  - 3 Tighten your buttocks, and then relax.**
  - 4 Do not forget your arms – stretch out and hold for a second, as in point 1 and let your shoulders sink into the bed.**
  - 5 Screw up your face muscles in a frown, make an ‘O’ with your mouth and then an ‘E’ sound, then stop, relax and feel the difference.**
  - 6 Finally do a whole body stretch from top to toe.**
- Repeat steps 1 to 6 three times.**

Now, let your whole body feel so heavy that it is sinking into the bed. Let your mind float away. After you have practised your relaxation, always get up slowly so that you do not feel dizzy. Do some slow wake-up stretches and sit for a minute.

## **Exercises for muscle strength**

These will maintain strength if you do them regularly and improve strength over time if you increase the number of repetitions and the effort you put into doing them. Try to do some of them every day. Aim to repeat each exercise five times, increasing gradually to ten times as you become more able. Finally build up to two sets of ten repetitions.

- Do each exercise in a steady, controlled way.
- Rest for two seconds between each repetition and two minutes between each set.
- Stop if you get breathless or if anything hurts.
- Do not hold your breath as you do these exercises. Breathe regularly throughout.

## **Sitting exercise for strength**

Do these in a sturdy hard chair with a straight back but no arms. Choose a chair which is the right height for your feet to rest flat on the floor with the back of your knees supported. Sit tall and well back in the chair, with a rolled towel at your back if it helps. For a warm up, do ten heel raises with each foot, keeping your toes on the floor and then move your arms, as if you were marching, for a count of ten.

## Tummy muscles

Sit tall, adjust your pelvic tilt. Pull your tummy button inwards towards your backbone, keeping your back straight. Hold for a count of five and relax.

## Buttock muscles

Tighten up your buttocks as much as possible. Your body should rise up on the chair. Hold for a count of five and relax.

## Back muscles

- 1 Take your hands to the front of your shoulders. Raise elbows forwards until they are level with your eyes.
- 2 Move your elbows out sideways and backwards as far as you can, squeezing your shoulder blades together. Hold for a count of five and relax. Build up to ten repetitions. (If using the arms is too painful, just squeeze your shoulder blades together.)

## Leg muscles

- 1 Slide forward a little on your chair seat, hold on to the chair seat with straight arms to support your back. Keeping the foot in contact with the floor and the leg as straight as possible, slowly slide one leg out in front of you. Tighten your tummy and thigh muscles and slowly lift the foot off the floor a few inches and slowly lower it again (do not just let it drop). Count five on the way up and five on the way down. Repeat with the other leg.

- 2 When you get good at this, lift your leg a little higher. Ensure the chest is lifted throughout and the knee is not 'locked out' but is as straight as you can manage.



When doing sitting exercises, choose a chair which is the right height for your feet to rest flat on the floor.

## **Lying down exercises for strength**

These exercises for back muscle strength can be done in bed if you do not find it possible to lie on the floor. These are two exercises starting from the same position called head lifts and leg lifts.

Lie down on your front with your hands folded under your forehead and, if it is comfortable, rest your forehead on your hands. Place a rolled towel under your tummy if you experience any discomfort in your lower back when doing these exercises.

### **Head lifts**

To begin with, using your hands and arms to push gently, raise your forehead off your hands a few inches keeping the back of the neck long as you do so. This will help you to get the feel of the movement.

Place the elbows directly under the shoulders and the palms in line with the elbows, like a lion! Keeping the back of the neck long as before, gently press the back, shoulders and neck upwards a few inches towards the ceiling by pushing on the forearms. Keep your forehead facing down and your knees and feet in contact with the floor throughout. Hold for a count of five; relax for a count of ten. Build up to two sets of 8-10 repetitions.

Progress to putting your arms at the sides of your body, with your palms facing downwards and resting on the floor. Your forehead should be facing downwards and resting on the floor, if comfortable. Raise the back, head and shoulders, keeping your hips and legs on the floor. Repeat the exercise and points as before.

### **Leg lifts**

Rest your head comfortably on crossed arms. Keeping your legs straight, tighten your buttock muscles and keeping the leg as long as you can, raise one leg slowly off the floor, not more than a few inches, hold and then lower it slowly. Keep both hips in contact with the floor throughout. Count five on the way up and five on the way down. Relax completely for a count of ten. Repeat with the other leg. Build up to two sets of ten repetitions. This is also an excellent exercise for helping to reduce spinal curvature. As before, use a rolled towel under the tummy for comfort.

**If you find this difficult, just make a small effort each time. If you keep trying every day you will find that you can manage a little bit higher each time and eventually achieve an inch or two, which is enough.**

## Standing exercises for strength

For a warm-up, stand tall and walk on the spot, swinging your arms for three minutes before doing some stretches.

## Arm and back muscles

Stand facing a wall an arm length away from it with your feet squarely planted shoulder width apart. Stand tall. Put your hands on the wall in front of you at shoulder height. Keeping your body in a straight line let your arms bend so that your shoulders move towards the wall. Then straighten your arms again to bring you back upright. Keep your tummy muscles tight throughout. Do ten of these with a few seconds rest between each. You can make this harder by standing a little further from the wall.

**After fractures, avoid forward-bending, 'touch your toes' type exercises and sudden high-impact exercises such as jumping and skipping.**

Swimming can be useful. Some women found enormous improvements in the long term by concentrating on exercise to improve muscle strength and posture (core stability exercises and Pilates). Your physiotherapist, or a Pilates teacher, can teach you appropriate exercises.

If you have the unusual localised type of osteoporosis of the hip during pregnancy you may be advised to have more strict bed rest and your physiotherapist will need to give you a range of gentle exercises to do whilst resting. If your hip has broken, talk to your physiotherapist about increasing the exercise you do appropriately.

## CASE STUDY

### Lisa (24)



I was 22 and five months pregnant when I began to experience sharp pains in my lower back and ribs. I was reassured by the midwife but three months later things only seemed worse. I was told

the baby was lying on a nerve but after she was born the pain was just as bad. I was sore, stiff and winded. I lost all my independence.

I could not lift my baby, could not dress myself or even lift my arms higher than my shoulder.

I even needed help to go to the toilet. It was several months before an x-ray was performed showing I had fractured several vertebrae in my back and a scan confirmed osteoporosis. Two years on, I am much better although I still have a problem with back pain.

**Remember this type of broken bone is rare and most back pain in pregnancy is not serious.**

# Being a new mother

## How can I cope with broken bones and being a new mother?

Women who have osteoporosis associated with pregnancy describe feeling worried, angry and frustrated at not being able to cope with a new baby. Often there are no clear answers to their questions and there are worries that they have done something to cause the problem or that the baby will be affected. It helped these women, when it was explained, that nothing in their lifestyle had caused bone loss and there was no evidence that the baby would be affected. Although it can be confusing to be told that the reasons for osteoporosis associated with pregnancy are unknown, the positive message is that full recovery is possible.

Women who have contacted the National Osteoporosis Society desperately needed support at this time. Some described struggling with a new baby and the pain of broken bones, as well as possible financial or relationship difficulties.

The National Osteoporosis Society nurses can put women in touch with someone who has gone through the same experience and will be able to share information and give encouragement. Many women find just talking to someone with similar problems an enormous relief.

Partners, family and friends often want to help as much as they can but this can be a bewildering time for everyone. Partners are often under considerable stress, supporting the mother with fractures and coping with the new baby. Some will feel the pressure to go back to work while wanting to help at home. In addition, being a parent for the first time brings its own challenges. It is important for partners to support each other by discussing all the options regarding child and home care and make a joint decision which they will both be able to cope with.

**Help is available from different sources and women can discuss their situation with their doctor, midwife or health visitor or call the National Osteoporosis Society Helpline on 0845 450 0230.**



New mothers need to have some time to themselves but for mothers with broken bones time to rest from caring for your child becomes very important. Most of the women we spoke to found a trustworthy, practical person with experience of children to be more helpful and less expensive than a qualified maternity nurse. Often, people do not have family living close by who are able to help so finding other support becomes essential. Talking to friends and neighbours and setting up a rota of people who can help is how some women have managed.

Women who have been through the same experience of osteoporotic fractures can often give practical tips. One woman found having a mobile phone close at hand gave her confidence if she was left alone. Another found having a trolley with everything she needed made life easier.

**If you decide to breastfeed, if possible, ask someone to pass the baby to you to avoid lifting.**



## **What about breastfeeding?**

This is a very personal decision. The body has an excellent inbuilt way of regulating itself during breastfeeding to make sure both mother and baby have an adequate supply of vitamins and minerals. Women probably do not need extra calcium when they breastfeed but they need to ensure they are getting sufficient amounts and to generally eat a well-balanced diet. Current recommendations are to gain 700mg calcium daily (an additional 550mg might be useful). Some women who have osteoporosis associated with pregnancy take supplements just to be on the safe side.



Doctors will often strongly advise women with this condition not to breastfeed because bone density stays low until you stop. The thinking is that you will be making more demands on your skeleton, and bone density

# Support

will take longer to improve. This is a difficult decision because of the undisputed health benefits of breastfeeding for both women and babies. There is also no clear evidence that, if you breastfeed, broken bones take longer to heal or that further fractures will occur. If this issue is very important to you, then you may decide to breastfeed for as long as you feel comfortable.

For some women, the decision not to breastfeed is made because of the enormous difficulty of breastfeeding with back pain and because they generally do not feel strong enough. It is, of course, most important that you look after yourself so that you can recover and are able to look after your baby easily.

Some women breastfeed but limit this to a few weeks rather than a number of months or years. Your midwife, health visitor and doctors will be able to help and support you with these decisions.

If you decide to breastfeed, even for a short time, make sure you are comfortably supported with pillows. If possible, ask someone to pass the baby to you to avoid lifting.

## Where else can I get help?

Help is available within the NHS and the local authority as well as charitable organisations.



## Financial Support

Information and advice on welfare benefits can be obtained from the Benefits Agency (**Tel: 0800 88 22 00**). If problems have continued for more than three months then women may be entitled to Disability Living Allowance.

If women with osteoporotic fractures are not fit enough to return to work when maternity leave ends then they may be eligible for Incapacity Benefit. Some women feel they need to return to part-time rather than full-time work and employers now have to give this serious consideration.

It will also be necessary to get advice on the level of National Insurance contributions that need to be made if you cannot go back

to work as you planned. Some women struggled to get benefits they were entitled to so it may be helpful to contact the local Citizens Advice Bureau if you need help.

Other women have found that the personal accident schemes of their insurance policies were willing to make payments when they were recovering from osteoporotic fractures. Insurance brokers can advise about this.

### **Other support**

The Social Services department can provide support, such as temporary 'homecare' if women with fractures do not have adequate practical support at this time. Direct contact can be made with Social Services which will arrange for a social worker to visit. This can also be organised by a health visitor.

Some women with painful fractures have expressed fears that if they cannot cope their baby might be taken into care. In practice, every effort will be made by Health and Social Services to ensure support is available so that women can look after their babies at home.

Day care for your baby may be suggested as a possible option but there are many other ways that support can be provided and in most situations this will be preferable for both baby and mother.

If your mobility is severely restricted because of fractures then your doctor can make a referral for a community occupational therapist to visit and suggest changes at home to ensure you and your baby are as comfortable and secure as possible.

Information about local support services is available from the Citizens Advice Bureau, library or health visitors.

The following organisations have groups that provide support:

### **The National Childbirth Trust (NCT)**

**Tel: 0870 444 8709**

**[www.nctpregnancyandbabycare.com](http://www.nctpregnancyandbabycare.com)**

### **Parents in Partnership – Parent Infant Support (PIPPIN)**

**Tel: 01727 899099**

**[www.pippin.org.uk](http://www.pippin.org.uk)**

**Be gentle with yourself at this time and be encouraged that things will get better.**

## Treatments

### **Should I take a drug treatment to strengthen my bones if I have osteoporosis associated with pregnancy?**

More research is needed so that women with osteoporosis associated with pregnancy can be clearer about whether they need to take drug treatments for their osteoporosis. Although there are a number of treatments for women with osteoporosis after the menopause, there are currently no clear recommendations for younger women. Some women, especially in America, have been prescribed drugs called bisphosphonates after having osteoporosis associated with pregnancy but it is difficult to know whether their improvement in bone density was simply part of the normal recovery process that seems to take place anyway.

The general consensus of the UK specialists working in this field is that it is usually best to leave a woman's skeleton to recover without drug treatments after having osteoporotic fractures associated with pregnancy. These treatments do not make fractures heal more quickly or take away the pain and the normal course for broken bones is that they heal and you get better. None of the osteoporosis treatments are licensed for younger women, nor have they been established as safe or effective treatments for this type of osteoporosis.

Vitamin D is obtained by normal exposure to sunlight and stored in the body.



Bisphosphonates, for instance, stay in the bones for a long-time and effects on a baby in the womb in any future pregnancy have not been tested. The good news is that women's skeletons seem to naturally and spontaneously recover their strength over time. It would be sensible to have a well-balanced, calcium-rich diet and gradually increase gentle and regular exercise. It is important not to make any hasty decisions about treatments, especially in the first year after breaking bones when you will feel very vulnerable. Specialists will often monitor bone density over a few years. If you continue to fracture or lose bone density and are keen to try treatments then talk to your doctors about this.

### **What about calcium and vitamin D?**

Most people can obtain sufficient calcium from their diets (700mg daily) and it seems sensible to ensure that you try to eat this amount. Vitamin D helps to keep bones strong by enabling the body to absorb calcium. Vitamin D is obtained by normal exposure to sunlight and stored in the body. There is no clear evidence that women with osteoporosis associated with pregnancy need extra supplements of calcium and vitamin D, but many women will decide to take them because this condition is so poorly understood and taking supplements is not going to be harmful.

## What about the future?

### How long before I get back to normal?

As with any broken bone, healing only takes about two months but it will probably be a number of months before things seem to get better. Be patient with yourself. Experiences are very varied and some women do have back pain problems to manage over longer periods. However, the outcome for most women is very positive and with good pain control, physiotherapy and lots of support you should make a full recovery.

### What about having sex after breaking your hip or bones in your spine?

As with any other activity there are no rules! Many women and their partners are anxious about returning to a physical relationship for fear of getting more pain or further fractures, or of causing either of these. Being honest and sensitive and talking about these fears will help as well as being imaginative about trying different positions – and keeping a sense of humour!

### Will other pregnancies be affected if I have another baby?

It is very much a personal choice as to whether you decide to have another baby. Some women are advised not to, others feel that, though it is rare for fractures to occur a second time, it is a risk they cannot take. Many women do go on to have problem-free pregnancies. Improving bone density is a good sign but some women have had uneventful second deliveries despite lower bone density measurement. It is difficult for clear recommendations to be made about any precautions that should be taken in subsequent pregnancies or deliveries, either by the woman herself or health professionals caring for her. Some doctors are very cautious and recommend a caesarean delivery; others would avoid the lithotomy position (which puts a strain on the hip) but there are also others who simply ensure women are handled carefully as for any woman with a back pain problem.

To help your bones keep strong, avoid excessive amounts of alcohol and smoking.



## **How can I keep my bones strong?**

Although osteoporosis associated with pregnancy is still a mystery, it makes sense to take positive steps and lifestyle changes to help keep bones strong. Increase the amount of exercise that you do once fractures have healed and aim to continue with three 20 minute sessions a week. You may need to adapt the exercise you do – swimming and later, brisk walking might be appropriate. Eat healthily, including adequate calcium and do not let your weight drop too low. Avoid excessive amounts of salt, alcohol, protein and caffeine, and also avoid smoking. Have sensible exposure to sunlight to gain adequate amounts of vitamin D.

## **Am I likely to go on breaking bones?**

It is rare to have fractures in subsequent pregnancies although sometimes they do occur. It is unclear whether having fractures associated with pregnancy means you are likely to have further broken bones, due to osteoporosis, in later life. The research has not proved this either way.

As a result of this uncertainty, most women who have had this condition would be advised to discuss their overall risk of osteoporosis and fractures with their doctor

when they reach the menopause. A bone density scan might be useful at this time to help to decide if osteoporosis treatments would be useful.

There are several treatments available to women after the menopause if they have high risks of osteoporotic fracture. These are bisphosphonates – alendronic acid or alendronate (Fosamax), risedronate (Actonel) and cyclical etidronate (Didronel PMO), ibandronate (Bonviva) and zoledronic acid (Aclasta), SERMs – raloxifene (Evista), strontium ranelate (Protelos) and parathyroid hormone. These drugs seem to improve bone strength and reduce the risk of breaking bones. Calcium and vitamin D may be prescribed with these treatments, or to older people, mainly to prevent hip fractures. Specialists might also use other drugs such as calcitonin and calcitriol. If a woman, after menopause, has a high risk of fracture (this will usually include osteoporosis on a bone density scan), then doctors will usually recommend treatment.

## **What are the risk factors for osteoporosis and broken bones in later life?**

There are other risk factors for having osteoporosis in later life. For example, if:

- You have an early menopause before the age of 45, or a condition such as the eating disorder, anorexia nervosa, that stops your menstrual periods.
- You have already broken a bone easily.
- You are taking corticosteroid tablets for another medical condition.
- You have a strong family history of osteoporosis and fractures and your mother has broken her hip.
- You have a low body weight.
- You smoke or you drink alcohol in excessive amounts (more than 14 units/week).
- You have a medical condition that prevents you absorbing nutrients from food, e.g. Crohn's disease, ulcerative colitis, and particularly coeliac disease.
- Other diseases, which increase risks of osteoporosis, such as an untreated over-active thyroid gland or rheumatoid arthritis.

These risk factors do not increase risks of having osteoporosis associated with pregnancy, which seems to happen spontaneously without any specific trigger.

**The good news is that, although a poorly understood condition, osteoporosis associated with pregnancy seems to right itself and create few longstanding problems.**

It can, however, cause immediate and dramatic effects for you when fractures occur and you may need intensive, supportive and understanding care at the time and for some considerable time afterwards.

## Useful contacts

### The National Childbirth Trust

Tel: 0870 444 8709

[www.nctpregnancyandbabycare.com](http://www.nctpregnancyandbabycare.com)

### Parents in Partnership – Parent Infant Support

Tel: 01727 899099

[www.pippin.org.uk](http://www.pippin.org.uk)

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Factors which can help to maintain healthy bones are a well-balanced diet with adequate calcium-rich foods; regular weight-bearing exercise; avoiding smoking and keeping alcohol consumption within the recommended limits.

