CG APPROVED

Management of a pelvic ring, pubic ramus or acetabular injury (non-operative)

Major Trauma Centre Collaborative Cheshire and Mersey Network

NHS Liverpool University Hospitals NHS Foundation Trust

Major Trauma

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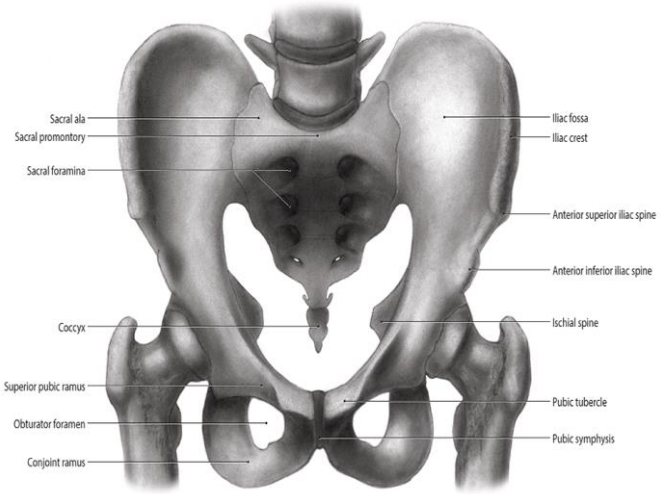

You have sustained injuries to the pelvic bones and or Acetabulum.

What is the Pelvis?

The pelvis is a ring made up of two bones joined at:

- the back by the sacrum, a bone which is the lowest part of the spine
- the front by the pubic symphysis (a cartilage joint).

The pelvis protects:

- the bladder
- the bowel
- the organs of sexual reproduction
- the blood vessels and nerves which go to your legs.

When walking and sitting your body weight is transmitted through the pelvis

What is the Acetabulum?

The acetabulum is the socket of the ball-and-socket hip joint. The top of the thigh bone (femur) forms the ball, and the socket (acetabulum) is part of the pelvic bone.

Is the acetabulum the same as the pelvis?

The acetabulum is part of the pelvis. The acetabulum is round in shape, and covered inside with smooth cartilage. This cartilage forms the smooth surface of the hip joint.

How do I Injure my Pelvis and or Acetabulum?

Pelvic fractures are uncommon, and generally occur from:

- Road traffic accidents
- Falls
- Sporting injuries (less common).

In general a pelvis can be broken in the following ways,

- crushed from side to side
- pushed apart from front to back
- one half can move vertically up from the other (as may happen when landing on one foot from a fall from height).

After all pelvic fractures the pelvis can have a range of stability, from broken but completely stable to completely unstable.

The stability of your pelvis depends partly on the direction in which it was broken, and partly by the amount of force that broke it.

Not all fractures need an operation. Most Pelvic &/or Acetabular Fractures do not need surgery.

How is a Pelvic and/or Acetabular Fracture diagnosed?

You would have undergone x-rays and maybe a scan (CT scan) so that the surgeon can decide the best way to treat your injury.

Non-Surgical Treatment:

Stable fractures will normally heal without surgery. The patient will have to use crutches or a walker, and will usually be advised to weight-bear as pain allows. The bones can take 3 months to fully heal, but by then you should be walking without aids. Most of the recovery should have occurred within 3 months, but some symptoms can persist for 12-18 months.

Your orthopaedic consultant will discuss the details of the fracture that you have had, and decide on any restriction to your mobility following injury and for how long.

Risks or complications

There are a number of complications that can occur after pelvic fractures, usually related to the injury.

It is important that should you become aware of any of these you tell us, as early treatment can be more effective.

1. **Bleeding**

   There are a large number of blood vessels in the pelvis. Any damage to the bones of the pelvis can also damage these blood vessels leading to serious bleeding which may be fatal.

2. **DVT or Pulmonary Embolism**

   See later in leaflet for explanation

3. **Chronic Pain**

4. **Bladder Injury**

The bladder can be injured, this is obvious if there is blood in the urine, but bladder injury can also cause:

- pain or difficulty with passing urine
- a need to pass urine much more frequently than before.

5. **Sciatic Nerve Injury**

   The most common early complication of this fracture is nerve damage, most often the sciatic nerve.

   This is a large nerve that passes down the back of your thigh and branches into the lower leg. Symptoms can vary and include numbness or pain in the foot, calf or thigh, weakness of the foot and ankle, or complete inability to move the leg.

   Other nerves can also be damaged, leading to similar symptoms in other parts of the leg. Nerve injuries can take many months and sometimes years to recover, having no recovery at all is very unusual.

   If the sciatic nerve is injured by the fracture then it may be looked at during surgery, and more information can be obtained regarding the likelihood of recovery.

6. **Sexual Function**

   Numbness can also occur:

   - around the perineum (pelvic floor area, this is a large group of muscles which pass from your pubic bone in the front of your pelvis to your coccyx (tail bone) behind)),

- On one side of the penis or vagina. Nerve damage can cause problems with sexual function (in both men and women) including difficulty in achieving an erection for men.

  We realise this is a sensitive issue, but should this be a problem it is advisable to mention this to your doctor/ physiotherapist.

  This may be a short-term problem following your injury. However, should this continue to be a concern you should mention it to your doctor at your follow up clinic appointment. They can then refer you to the Urology team who specialise in this field.

7. Arthritis

The biggest long term complication of a broken Pelvis or Acetabulum is the development of arthritis.

The main reason we may operate on these fractures is that we know from past experience that if we leave the fractures in a poor position, although they will often heal, arthritis may follow within five years.

This is mainly because of the amount of damage done to the joint surfaces at the time of injury. This means that even if the pieces are put back together perfectly, the cartilage (soft tissue) on the joint surface is damaged beyond repair.

In some cases the bone is crushed and simply doesn't fit back together properly, or the bone loses its blood supply and dies over the next two years.

Therapy

The joint therapy team of physiotherapists and occupational therapists will have carried out detailed assessments of your needs, and given you a plan for discharge or on-going rehabilitation.

There may be a need for you to be transferred to rehabilitation during the recovery period.

Assessments will take place to identify any equipment that you will need for discharge. (We do not normally provide wheelchairs for short term use. If the therapists feel you would benefit from having a wheelchair you will be provided on details of how to loan one, although it is unlikely you will need one.)

The physiotherapist will help you move your hip joint:

- up and down (flexion and extension)
- out to the side and back (abduction and adduction)
- turn it in and out (internal and external rotation).

The physiotherapist will show you some additional exercises and advise you when to start them. A paper copy of the exercises will be provided by the physiotherapy team.

Medication and Pain Relief

You will be given pain relieving medication to take home with you, please take as prescribed to prevent pain building to an intolerable level (Please follow advice on medication packaging).

We normally provide a 1 week supply of medication on discharge.

A discharge summary letter will be sent to your GP with details of your hospital stay, and a current list of your medication. We will normally provide you with a copy of this letter with your medication on discharge.

Regular pain medication may cause constipation. If this occurs please see your local pharmacist for advice.

Driving

If you drive, please liaise with your consultant team and DVLA to discuss when it is safe for you to resume. If you drive against medical advice, your insurance may be void.

Pregnancy

We advise pregnant females who have under gone surgery for their pelvic fracture, to let your midwife know regarding your pelvic injury.

Your midwife will refer you to a gynaecologist, who will then seek advice from your pelvic surgeon

VTE (venous thrombo-embolism)

VTE is a collective term for 2 conditions:

- DVT (deep vein thrombosis) – this is a blood clot most commonly found in a deep vein that blocks the flow of blood.
- PE (Pulmonary embolism) – a potentially fatal complication where a blood clot breaks free and travels to the lungs.

Whilst you are less mobile, the risk of VTE is higher.

VTE is a major health risk in the UK. Your consultant will discuss with you if intervention with anticoagulation (blood thinners) is required.

Things that you can do to prevent VTE:

- Mobilise as instructed by the consultant and therapy teams.
- Keep well hydrated – drink plenty of water.
- We strongly advise you not to smoke. This is a great opportunity to stop smoking. The ward staff or your GP can help you to access smoking cessation services.
- Occasionally you will be given Flowtrons to pump blood from your calves around your body whilst you are in bed
- If you have been recommended anticoagulation therapy, please comply fully with the treatment for the duration of the course.

Most patients who have suffered a fractured pelvis will go home with 6 weeks blood thinning injections.
Your Consultant, Pharmacist and Nursing team will speak to you re this.

Symptoms:

- Calf swelling – you may already have some swelling of the legs, but increase in swelling needs to be assessed.
- Calf tenderness and increased pain.
- Heat and redness in one or both legs.
- Unexplained shortness of breath.
- Chest pain when breathing in.

A blood clot can occur without any symptoms. If you have any concerns seek immediate advice.

Useful Contacts

- Major Trauma Nurse Practitioners:
- Major Trauma Nurses 24hr answering machine. Leave name contact number and short message. Telephone number 0151 529 2551
- Office Number 0151 529 8595
- Nursing staff on Major Trauma Ward: Telephone number: 0151 529 6255
- If you think that your condition is serious then it is best to go straight to your local Emergency department*.
  - Fracture Clinic (Monday to Friday) (0151) 529 2554
  - NHS Direct: 111

If you require a special edition of this leaflet

This leaflet is available in large print, Braille, on audio tape or disk and in other languages on request. Please contact:

Tel No: 0151 529 2906

Email: interpretationandtranslation @liverpoolft.nhs.uk