

Fixation and bone grafting of scaphoid non-union

What is a scaphoid non-union?

This means that in the past you broke your scaphoid bone (one of the bones in your wrist) and it did not heal.

What problems does a scaphoid non-union cause?

The two fragments of the scaphoid bone have not healed and move against each other. This may cause pain and affect the overall way in which the wrist moves. In the longer term this can lead to arthritis in the surrounding bones which can cause pain and stiffness.

What are the benefits of surgery for scaphoid non-union?

The aim of surgery is to try and help your broken scaphoid bone heal. Once healed, your pain should improve and the risk of developing arthritis in the future is reduced.

What does the operation for scaphoid non-union involve?

There are various techniques for this operation but all involve a cut in the skin and underlying tissues for your surgeon to reach the scaphoid bone and the use of metalwork, usually a single screw, to hold the two bone fragments together. Frequently a small piece of healthy bone from elsewhere in your body is used to aid the healing of the two fragments. This is called a bone graft and is commonly taken from one of your forearm bones or from the prominent part of your hip bone (iliac crest).

What are the risks and consequences associated with scaphoid surgery?

As with any surgical procedure there is a risk of complications or side effects with this operation.

These include wound infection, swelling, numbness around the scar, tender scar, wrist stiffness and failure of the scaphoid bone to heal despite surgery. Smoking increases the risk of the bone not healing.

A small percentage of patients develop a severe pain reaction after hand and wrist surgery which can be difficult to treat.

Are there any alternatives to surgery for a scaphoid non-union?

This depends on how much time has passed between your injury and a scaphoid non-union being identified, as well as what treatment, if any, you have already had. Very prolonged plaster cast immobilisation may permit the bone to heal slowly, but the success rate of this is low. If you choose not to go ahead with surgery and continue to use your wrist, this is likely to lead to arthritis in the future as outlined earlier.

Getting ready for the operation

Once you have been placed on a waiting list for surgery by your consultant, you may be invited to attend the Pre-operative Assessment Clinic. Here, a nurse will ask you about any medical problems you have including any regular medication you take. You may need to undergo some routine tests before your operation such as a blood test and a heart trace (ECG). If you are not invited to attend the pre-operative assessment clinic in person, you may be contacted by telephone.

You will receive a letter from your consultant's secretary informing you of a date for your operation and a time at which you need to arrive. You will also be given instructions on when to stop eating and drinking.

Most surgery on the hand and wrist is done under a regional nerve block with you awake. This means the anaesthetist will make the arm where you are having the operation numb by injecting some local anaesthetic around the nerves at the bottom of your neck or top of your arm. If you are having a bone graft taken from your hip bone, you will have a general anaesthetic and you will be asleep throughout the operation.

On the day of surgery

When you arrive at the Hand Day Case Unit, you will be introduced to the staff, who will go through some paperwork with you and then show you to a waiting room. Your details (name, date of birth etc.) will be checked on a number of occasions before your operation. This is normal practice and is for your safety.

You will be asked to sign a consent form with one of the surgical team to say that you understand what you have come into hospital for and what the operation involves.

You will meet your anaesthetist who will discuss with you the type of anaesthetic you are going to have.

You will be given an operation gown and a wristband to wear.

When it is your turn to go into theatre, a member of staff will take you to the anaesthetic room.

What should I expect once the operation is completed?

If you have had a regional nerve block and have been awake throughout, you will be taken to the ward where your arm will be placed in a sling and you will be offered something to eat and drink.

If you have had a general anaesthetic, you will be taken to the recovery room until you wake up. Your pulse, blood pressure, and operated arm will be checked regularly by a nurse.

You will probably be discharged home on the same day though occasionally you are advised to spend one night in hospital.

After your operation

After the operation you may have 2 scars, one on your wrist and one on the top of your hip bone.

At the beginning you may find the pain in the hip bone to be more severe than the wrist. The pain will settle down over a couple of days and should not cause problems in the long term.

Once you are back home, it is very important that you keep your arm elevated for the first few days following surgery. This will help any swelling to go down.

Following this operation, you will have a plaster which will be changed after 1 - 2 weeks when you return to the clinic. At this clinic appointment, your wound will be checked and your stitches removed if necessary. The length of time you will be in plaster is variable, but usually between 6 - 8 weeks. Once the plaster is removed you will be seen by the hand therapy team and may be provided with a removable splint. Your doctor will monitor you in clinic until the scaphoid bone has healed. Sometimes you will be referred for a CT scan to confirm that the bone has healed.

Driving

You should not drive for the duration of time your wrist is in plaster. After this time, only start driving on the advice of your surgeon or therapist.

Time off work

If you are in a job that does not require full use of both hands, you could return to work within a few days of surgery.

If you have a heavy manual job, you would most likely be required to be off work for considerably longer, unless lighter supervisory duties could be found for you.

Important information for day case patients

You must not drive or go home by public transport. Therefore, you must make arrangements for someone to collect you. It is not appropriate to go home unaccompanied in a taxi. Please note: hospital transport and ambulances are not normally available for day patients.

The anaesthetic drugs remain in your body for 24 hours and during this time are gradually excreted from the body. You are under the influence of drugs during this time and therefore there are certain things that you should and should not do.

You should:

- Ensure that a responsible adult stays at home with you for 24 hours.
- Rest quietly at home for the rest of the day - go to bed or lie on the settee.
- Drink plenty of fluids, but not too much tea or coffee.
- Eat a light diet e.g. soup or sandwiches. Avoid greasy or heavy food as this may cause you to feel sick.
- Lie flat if you feel faint or dizzy.
- Contact your GP if you have not passed urine 12 hours after your operation.
- Have a lie in the next day. It could take 2 - 3 days before the weariness wears off and you could suffer lapses in concentration for up to a week.

For at least 24 hours after your operation you must not:

- Lock yourself in the bathroom or toilet or make yourself inaccessible to the person looking after you.
- Operate any domestic appliances or machinery.
- Drink alcohol.
- Make any important decisions or sign any important documents.
- Be responsible for looking after small children.
- Watch too much television, read too much or use a computer as this can cause blurred vision.

If you have any queries or require further information,
please contact your consultant's secretary.