



National Joint Registry

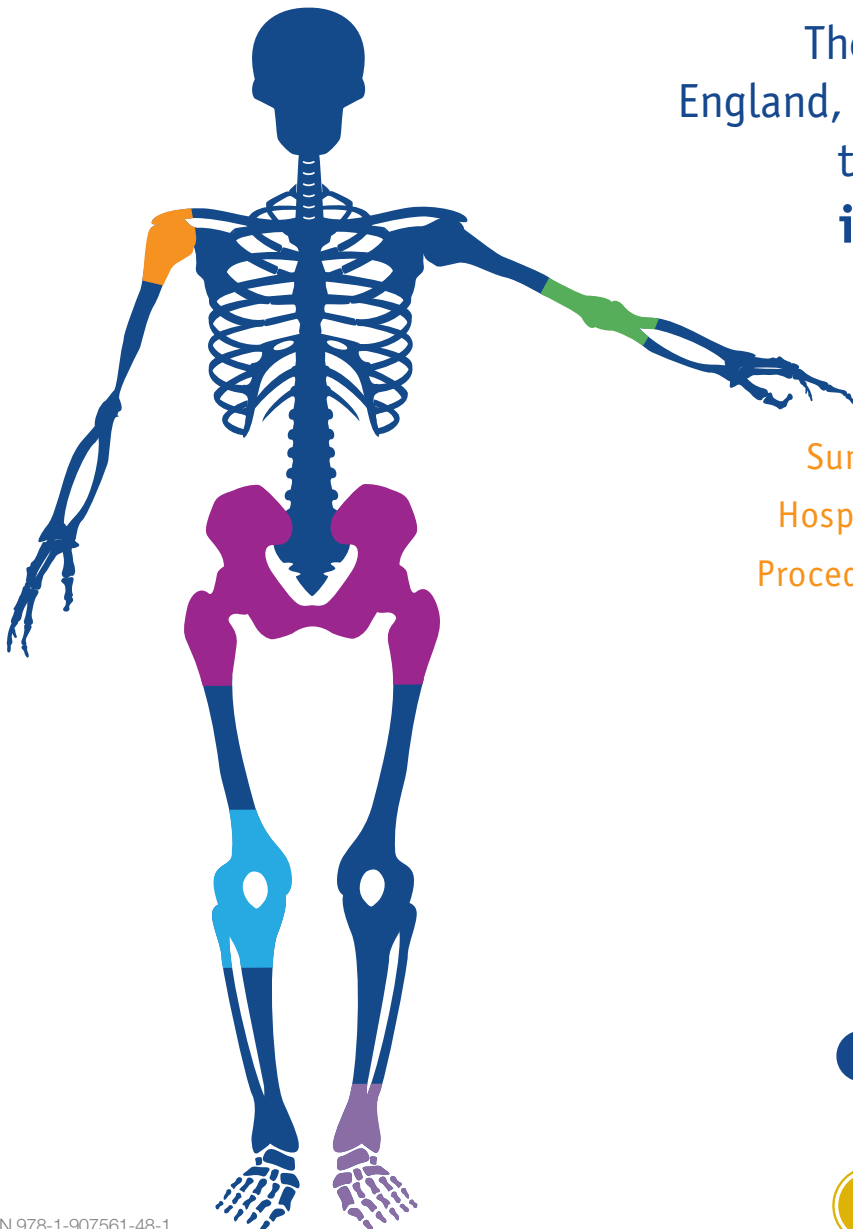
www.njrcentre.org.uk

Working for patients, driving forward quality

PUBLIC AND PATIENT GUIDE

TO THE NJR'S 14TH ANNUAL REPORT 2017

Shoulder replacement edition



The National Joint Registry for England, Wales, Northern Ireland and the Isle of Man is working to **improve your experience of joint replacement**

Patient FAQs
Summary of key facts
Hospitals and surgeons
Procedures and implants



 /nationaljointregistry

 @jointregistry

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Reading this guide

Where words are **highlighted in bold**, there is related information to be found in the right and left hand columns on the page:



Additional information to help you digest the content on shoulder replacements

Welcome to this Public and Patient Guide to the NJR's 14th Annual Report

As joint replacement patients, we know how important it is to receive good quality information to help you understand more about your options and the treatment that has been recommended for you. That's why the NJR continues to produce a patient guide alongside its main report.

We know that access to NJR data can be a helpful tool for shared decision making. The NJR has recorded shoulder replacements since 2012 and so far, more than 23,500 shoulder replacement procedures have been recorded.

Joint replacement is a highly successful operation that can bring relief from pain and improve mobility. However, going through the process can be baffling and many patients do not always understand their options or the detail of their treatment plan. There are also lots of variables that can affect the final outcome for each individual, particularly for shoulder replacement as it is a complex joint, moving in multiple directions and has internal tendons that are often torn and affect the outcomes.

We hope this guide provides information to help you consider questions for your surgeon and healthcare team about the treatment and implant recommended for you. The same is true for friends and family members who might be supporting you at this time.

We hope you seek out support, or share this guide with others in order to get a better sense of how the information and data inside can help you.

Whatever the reason for your shoulder replacement, there are many others going through the same process, and it may help to know you are not alone. There is additional support out there for you on shared decision making as well as advice on looking after yourself before and after surgery. We have listed some of the organisations that can help at the back of this guide.

The National Joint Registry doesn't work in isolation – the information in this document is just one source that we hope will help you feel more confident in asking questions about your surgery, your implant and your recovery.

We will produce this guide each year, as the NJR continues to report on the growing number of shoulder joint replacement records it holds. Feedback is welcome at any time and you can contact NJR Communications on 020 7997 7370 or email: njr@njr.org.uk.

We would like to extend thanks as always to our NJR Patient Network, for their helpful thoughts, ideas and comments in ensuring this guide is as useful to patients as it can be.



Sue Musson

Sue Musson

Post-operative hip replacement patient



Gillian Coward

Gillian Coward

Post-operative hip replacement patient also living with rheumatoid arthritis

About the NJR

How does the NJR help patients?

We record information about joint replacement operations in England, Wales, Northern Ireland and the Isle of Man in order to monitor the results of joint replacement surgery and protect patient safety. Using those records, we provide information and evidence to:

- Help surgeons choose the best artificial joints (implants) for patients
- Empower patients by helping them find out more about the implants available to them
- Improve patient safety by showing how well implants, surgeons and hospitals perform and take action where it is needed
- Give hospitals, surgeons and implant manufacturers feedback about their performance to help them improve patient care
- Help surgeons quickly decide whether patients need to return to hospital if implant problems are found

We currently collect information on hip, knee, ankle, elbow and shoulder procedures. However, ankle replacements have only been part of the registry since 2010 and elbow and shoulder replacements have only been collected since 2012.

England and Wales have been covered since 2003 and Northern Ireland joined in February 2013. The Isle of Man joined in July 2015 and as a result, their data has not yet been included in the NJR's Annual Report analysis. Currently, Scotland has its own joint replacement registry.

What information is collected?

Your hospital will input specific details of your operation into the NJR. This will include the type of implant you received, which surgical technique was used, which side of your body the implant went into as well as your age and gender.

The NJR asks all patients to consent to have their personal details (name, date of birth, address and NHS or national patient number) recorded with their operation details – this

allows the NJR to be more effective in its role of monitoring and improving patient care.

Why does the NJR need my personal details?

Your details allow the NJR to link you to the implant(s) you received during surgery. If for instance, you need an operation in the future to replace a first-time implant, the NJR can measure the time between the operations. Adding together this time from all patients' operations tells us how well different implants, hospitals and surgeons perform.

Also, in the rare event that a problem is found with a particular brand or type of implant, recording your personal details on the NJR can also speed up and support the hospital process of reviewing affected patients.

Please be assured that your personal information is kept confidential at all times and secure protocols are in place to ensure it is kept safe. If you would like more information about this then please see the **NJR patient consent form** and NJR patient information leaflet. Alternatively, you can find out more on our website at www.njrcentre.org.uk

Giving your consent is voluntary, however, 92% of patients agreed to have their details added to the NJR last year.

Who else do you share the data with?

There are lots of different ways we share and use the data, ensuring that the evidence we collect is used to inform clinical decisions and improve joint replacement surgery. For example, surgeons, hospital management and manufacturers of implants can all use their own unique online system (via a secure log-in) designed to give them access to information that can inform, influence and improve their work.

Security and confidentiality is always paramount and there are multiple safeguards in place to ensure that patient identities are protected.



All hospitals should ask patients whether they wish to consent to have their details added to the NJR and ensure the responses are recorded on the NJR database

Can I access the information recorded about me?

Yes. As a patient, if you gave consent to have your details added to the NJR, you can request to see your records at any time by completing a patient operation request form. This is available to download from www.njrcentre.org.uk.

I've heard the data are also used for research?

We are pleased to have an active research policy and make sets of data available for specific research so that more can be learnt about implants, surgery and their results. The release of data for projects is subject to very strict scientific and ethical controls and is only approved where they can prove that the work will enhance the understanding of joint problems and how they can be best treated.

An example here is the NJR's extended Patient Reported Outcome Measures (PROMS) project. These are questionnaires sent to patients before and after surgery to collect measurements of pain and physical function.

We are following-up with a group of 50,000 patients at the moment and have recorded information at one and three years and will soon be planning to do this again at five years. This research project was approved because it can help build up a very detailed picture of the factors that are most important in ensuring a successful surgical outcome from the patient's perspective.

About shoulder replacement

There are many organisations that provide additional general information about joint replacement, including specific guidance before and after surgery as well as online discussion forums. Please see page 11 for their contact details.

What is a shoulder replacement?

A shoulder replacement, often referred to as a shoulder implant (and sometimes simply as a 'device'), is, in basic terms, an artificial implant that replaces a shoulder joint that is damaged.

Joint replacements are nearly always carried out because of pain that cannot be controlled by other methods such as painkillers, physiotherapy or other surgery. The most common cause of pain is **osteoarthritis** or **inflammatory arthritis**.

What healthcare staff will be involved with my treatment?

Once it has been suggested to you (commonly by your GP) that a shoulder replacement may be advisable, they may well refer you to a musculoskeletal clinic (MSK) or another GP with a speciality in the area for further assessment.

If you are then referred to hospital you will see an orthopaedic surgeon or a member of his or her team. This may be followed by a pre-surgery assessment clinic(s) where you may be seen by nurse practitioners. Either at this clinic, or on the day of your surgery, you will also see an anaesthetist to discuss options for anaesthesia and pain relief. These appointments are also the times when you are most likely to receive information about the registry and be asked whether you would like to consent to have your personal details recorded. Your hospital should ask you to consent to your details being entered into the NJR, and we recommend that you do. Please ask for the NJR consent form if it is not offered to you.

During your hospital stay, you might also see an occupational therapist or physiotherapist who will advise you on your aftercare and help you prepare for your recovery after the hospital stay.

Together, these healthcare staff make up what is commonly called your healthcare or clinical team.

Do I have to have a shoulder replacement? What are the alternatives to surgery?

The final decision to have an operation or not remains with you the patient. It will be based on the risks and benefits of having a shoulder replacement or choosing not to (these choices should be made clear to you). It may be that other options are available including, but not limited to, medication, physiotherapy, weight loss or other lifestyle changes.

Can I get a second opinion?

The appointments you have prior to the operation (referrals to a musculoskeletal clinic and/or hospital-based assessments) are designed to further analyse and discuss your GP's initial diagnosis. If you are unsatisfied having met with your surgeon, you can return to your GP and ask to see a different surgeon.

You could also use services like NJR Surgeon and Hospital Profile at www.njrsurgeonhospitalprofile.org.uk and NHS Choices to find out more about the hospitals and surgeons that provide services in your area. The service currently covers England but may extend to Wales and Northern Ireland in the future.

Can I choose which hospital and surgeon perform the operation?

In principle, yes — as part of the NHS Choices initiative, you do have the option in England to be referred to a specific hospital or surgical team (options may be more limited elsewhere). Of course each individual case is unique, and the reasons for requesting a specific hospital need to be justified, as do any costs and other implications associated with a request to be treated at a non-local hospital. The NHS is not able to provide a commitment that a specific surgeon will carry out your operation.

What are the risks involved with having a shoulder replacement procedure?

The overall risk involved in shoulder and other types of joint replacement surgery is very low. With any surgical procedure there is a small risk of medical complications such as heart attack, stroke and developing blood clots (thrombosis). Infection is rare, typically less than 1%.

Other surgical problems are also rare, but include dislocation, fracture, nerve damage, pain and stiffness. Your surgeon will go through all of the risks before you sign a surgery consent form.

With time, some implants wear out or become loose and occasionally break, leading to the need for further replacement (revision) surgery.

What kind of implant (artificial joint) will be used? Are there options?

The shoulder is a complex joint and there are several types of implant involved in shoulder replacement. While the material of the implant predominantly remains the same, the method of fixing it into place may vary. As part of your hospital-based assessments, the most suitable procedure for your individual situation will be established and you will be able to discuss this choice with your surgeon.

How can I find out how many joint replacement procedures my local hospital carries out?

As part of NHS England's transparency initiative, the NJR now publishes **surgeon performance information** along with information about the **hospitals** where those surgeons work. The information is not contained in the NJR Annual Report but can be found online at www.njrsurgeonhospitalprofile.org.uk. See page 7 of this guide for more information about this service.

In 2016, osteoarthritis

was recorded as the **main indication for surgery in 55% of shoulder replacement patients.**

Cuff tear arthropathy was recorded for **26%** of patients



Use the **'Questions'** section on page 11 to **write down the questions or issues you would like to cover at your next appointment**

Did you know that many hospitals run 'Joint Replacement Schools' as part of the NHS Enhanced Recovery Programme?

This is a chance to meet patients who have had, or will be having, a joint replacement operation

Shoulders



6,967
replacement
procedures
were recorded 2016

↑ 12.9%
(6,170 in 2015)

recorded on NJR since April 2012

70%



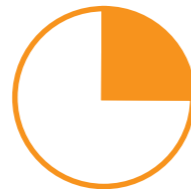
average
ages:

69.2 73.9

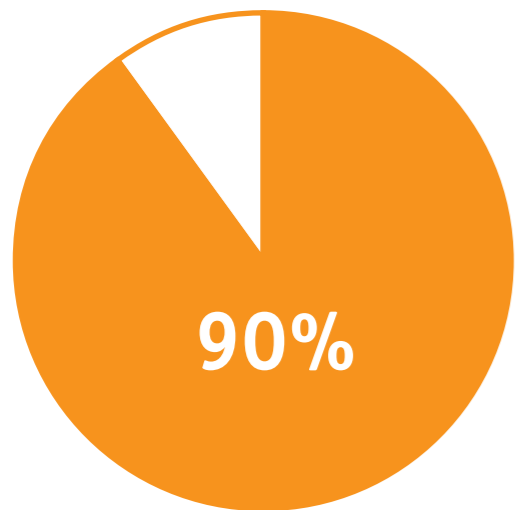
Diagnosis ▼ *



55%
osteoarthritis



26%
cuff tear
arthropathy



○ primary operations
● revision operations

Surgeon and hospital information

Information on more than 2,000 joint replacement **surgeons carrying out orthopaedic surgery** for the NHS in England is available for public access at www.njrsurgeonhospitalprofile.org.uk.

The data are collected and presented by the NJR. Since 2014, surgeons carrying out ankle, elbow and shoulder joint replacement surgery were included alongside hip and knee surgeons for the first time.

The published surgeon profiles cover:

- Hospitals where a Consultant in charge works
- Number of primary and revision joint replacement procedures undertaken and overseen by each Consultant in charge over one and three years

As well as surgeon profiles, there is information for hospitals. Within the surgeon and hospital profiles, there are also statistics for the national averages so you can compare information and performance against these figures.

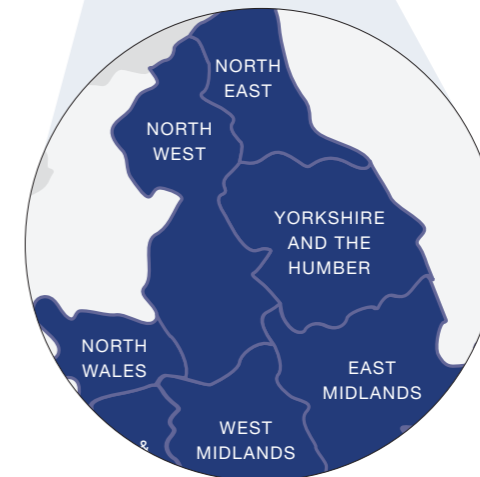


An A-Z listing:

A-Z OF HOSPITALS

A-Z OF SURGEONS

Find out more: This website service is refreshed and enhanced annually with hospital and surgeon information. Share www.njrsurgeonhospitalprofile.org.uk with your friends and family.



Why can't I find my surgeon on the website?

Your surgeon's information might not be listed on the NJR Surgeon and Hospital Profile website if they have not undertaken NHS-funded joint replacement surgery in England recently as Consultant in charge (a Consultant in charge is responsible for the operation but may not have performed the surgery). Consultant surgeons who only practice in Wales, Northern Ireland or the independent (private) sector are not automatically included.

Remember you can also talk to your surgeon about their experience. If you would like to ask but feel uncomfortable doing so, perhaps consider taking a friend or family member to your appointment. It's important that you feel comfortable and confident in the discussions you have about your treatment.

All patients are individuals and many have **unique problems** that require an operation to be **tailored to their specific needs**. If you have any questions about the shoulder type your surgeon is planning to use in your care, **he or she would be happy to explain the reasons for choosing a particular implant**

This procedure tends to be used in patients with severe arthritis and degeneration of the bone and very weak muscles in the shoulder for example, a torn rotator cuff muscle. The reverse procedure allows the patient to use other, more able muscles to mobilise the joint

To help **you** digest the information and analysis included in this section, we have included an explanation of general orthopaedic terms for shoulder replacement.

Shoulder replacements are made up of a humeral head (ball) and socket (glenoid fossa):

Humeral head

This is fixed into the top of the humerus (upper arm bone) after the removal or shaping of the patient's existing humeral head. It is a highly polished metal ball on top of a metal stem which is fitted into the bone cavity of the upper arm bone and can either be uncemented or cemented.

For resurfacing procedures, the humeral component is a cap-like prosthesis with a shorter stem. Again, this may be uncemented or cemented.

Glenoid component (socket)

This is the shallow cup or socket of the shoulder joint against which the humeral head moves. The cup is made of plastic and is usually fitted with the use of bone cement. Some types of socket are now made of plastic with a metal backing, which can be fitted to the bone without use of cement.

For all procedures, different sizes of implants are available to aid the surgeon in finding the most suitable 'fit' for the patient.

Standard total shoulder replacement

For a standard total shoulder replacement, a humeral head (metal ball) and plastic socket are fitted.

Reverse total shoulder replacement

In a reverse total shoulder replacement, the socket and metal ball are switched. In this procedure the socket is fixed to the top of the upper arm with a cemented stem to secure it in place. The metal ball is fixed to the existing shoulder socket.

Hemi-arthroplasty

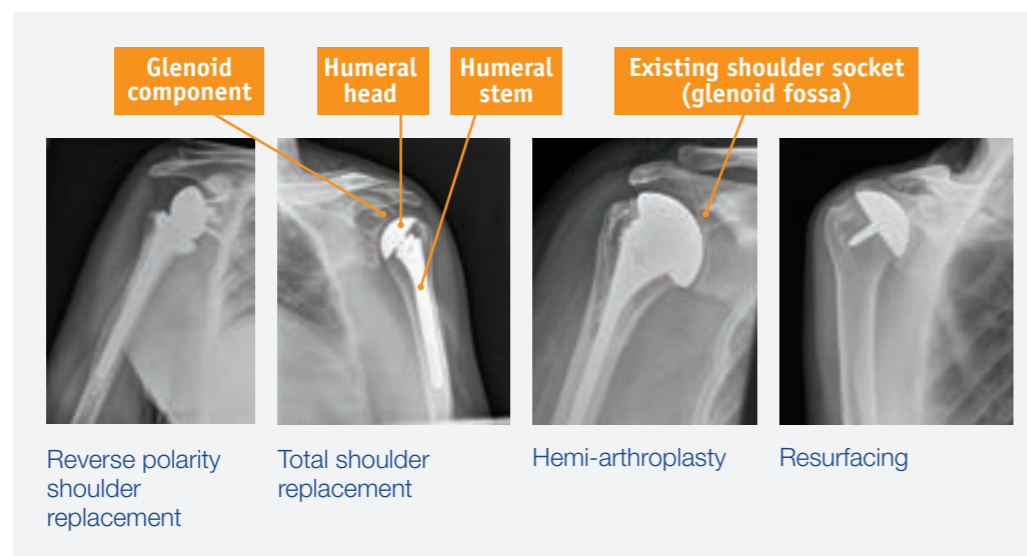
A patient's joint may only require the humeral head to be replaced. This is where the highly-polished metal ball would move against the patient's existing shoulder socket (glenoid fossa).

Resurfacing hemi-arthroplasty

This procedure involves reshaping of the patient's own humeral head and placing a cap-like component on the bone with a short stem.

Resurfacing arthroplasty

This involves the use of a cap-like component on the patient's humeral head with a plastic socket component.



The NJR started recording shoulder joint replacement information in April 2012. In 2016, the fourth full year of collecting information, a total of 6,967 patients had a shoulder replacement operation. Of these:

- 6,255 patients had a first-time or primary shoulder replacement
- 712 had a re-do or revision procedure

About first-time shoulder replacements in 2016

Types of procedures

- The most frequently performed primary procedure was the reverse polarity total shoulder replacement, carried out in 51% of procedures. This was followed by the standard polarity total shoulder replacement, carried out in 30% of procedures
- Of the remaining procedures 10% were hemi-arthroplasty, 6% were **resurfacing** hemi-arthroplasty, and 3% were **resurfacing** arthroplasty

Age and gender

- The average age for women was 73.85 years and the average for men was 69.23 years
- Patients aged between 65-84 years accounted for 74% of all patients undergoing first-time shoulder replacement
- 70% of patients were women

Diagnosis and patient health before surgery

- 55% had a diagnosis of osteoarthritis, followed by cuff tear arthropathy in 26% of patients. Cuff tear arthropathy describes a patient with arthritis and a large tear to the rotator cuff muscle and upward migration of the upper arm bone (humerus)
- 28% had a higher risk of medical problems before or after surgery

Surgical technique

During a first-time shoulder replacement, bone grafting may be required to stabilise the joint and implant. In 2016, 9% of procedures required humeral bone graft (at the top of the upper arm bone) but only 5% required glenoid bone graft (in the socket of the shoulder).

Other procedures can also be required and long head biceps tenotomy was required in 69% of shoulder replacement procedures. This is where a damaged long head biceps tendon is released from its attachment to the top of the socket.

83% of shoulder procedures were performed using a deltopectoral approach – making the incision and accessing the joint through the front at the natural meeting place of the shoulder and the upper body.

Measures to prevent blood clots

The type of prevention offered to patients varies, depending on their risk factors, e.g. previous experience of a blood clot in leg veins. There are two main types – chemical and mechanical:

- 97% of shoulder replacement procedures used mechanical methods and the most common was TED (anti-embolism) stockings in 84% of procedures
- 71% used chemical treatment and the most common regime was low molecular weight Heparin in 90% of procedures
- 70% of procedures used both chemical and mechanical methods

About revision shoulder replacements

Over time, implants will wear and need to be revised, often due to loss of function or pain – commonly known as revision procedures.

The NJR records operation information and patient details (by consent) to measure the length of time an implant lasts. This is to ensure that if any implants fail earlier than expected, it can be picked up and the information acted upon.

Of the 712 patients that had a re-do or revision procedure in 2016:

- The average age for women was 70.89 years and 66.12 years for men
- 27% were conversions from a hemi-shoulder replacement procedure to a total shoulder replacement procedure
- 24% were revised for **cuff insufficiency**

Resurfacing procedures

tend to be offered to younger or very active patients so they might benefit from an implant that will allow better preservation of bone stock. A total shoulder replacement can be offered later on

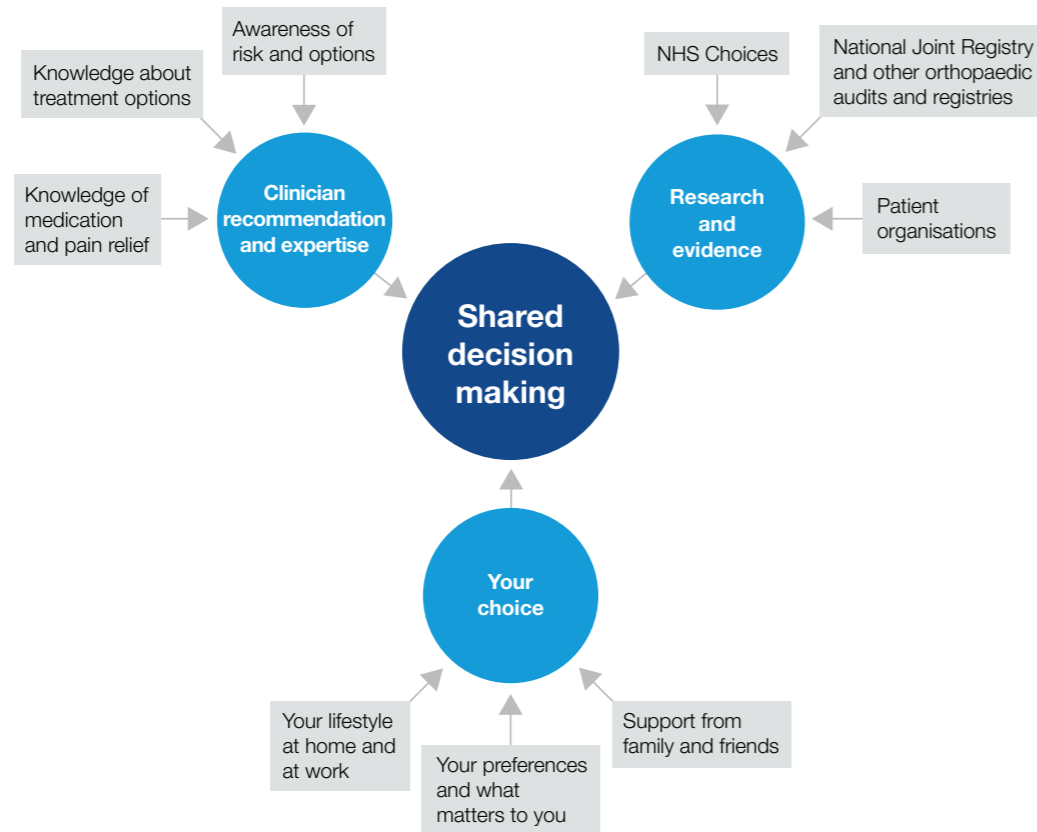
Cuff insufficiency relates to irreparable damage to the rotator cuff shoulder muscle and tendons

Find out more:

Further information can be found at a new, dedicated website www.njrreports.org.uk

Joint replacement is a highly successful operation that can bring relief from pain and improve mobility. However, going through the process can be baffling and many patients do not always understand their options or the

detail of their treatment plan. It is important you feel supported by your surgeon when discussing your available options. Working together with your practitioner is known as **shared decision making**.



Shared decision making recognises all the different factors in your life that will lead to better quality decisions, from your surgeon's advice through to the support from your family and friends.

Sources such as this National Joint Registry guide should make you feel confident in asking questions about your surgery, your implant and your recovery. On the next page are some commonly-asked questions, and some space for you to make notes.

Whatever the reason for your joint replacement, there are many others going through the same process, and it may help to know you are not alone. There is additional support out there for you on shared decision making as well as advice on looking after yourself before and after surgery. See the page opposite for a list of useful organisations that can help.

Please use this page to make notes and questions, either for your surgeon or clinical team at the hospital. Some commonly asked questions are listed below:

Do I need joint replacement surgery?

Are there other options available to me?

.....

If I do, how should I prepare for surgery?

.....

What type of implant are you recommending?

What are the pros and cons?

.....

What surgical technique would be used?

What are the pros and cons?

.....

What should I know about my aftercare?

.....

What should I think about when I return home after my operation?

.....

 **Age UK**
www.ageuk.org.uk
0800 169 6565

 **Arthritis and Musculoskeletal Alliance**
www.arma.uk.net
020 7842 0910/11

 **British Orthopaedic Association**
www.boa.ac.uk
020 7405 6507

 **Alkaptonuria Society**
www.akusociety.org
01223 322897

 **Arthritis Research UK**
www.arthritisresearchuk.org
0300 790 0400

 **National Rheumatoid Arthritis Society**
www.nras.org.uk
0800 298 7650

 **Arthritis Action**
www.arthritisaction.org.uk
0800 652 3188

 **British Elbow and Shoulder Society**
www.bess.org.uk
020 7269 5200

 **NHS Choices**
www.nhs.uk
www.nhs.uk/mynhs

 **Arthritis Care**
www.arthritiscare.org.uk
020 7380 6500

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Have you seen:

Our monthly eBulletins? www.njrcentre.org.uk

Our Surgeon and Hospital Profile service? www.njrsurgeonhospitalprofile.org.uk

Our online NJR Annual Report information? www.njrreports.org.uk

Our other patient guides?



All this and more can be found online at www.njrcentre.org.uk



To find out more about the NJR:

 Visit our website at www.njrcentre.org.uk

 Call the NJR helpline on **0845 345 9991**

 Send an email to enquiries@njrcentre.org.uk

 Write to **NJR Centre, Peoplebuilding 2, Peoplebuilding Estate
Maylands Avenue, Hemel Hempstead HP2 4NW**

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