Trust Guideline for the Enhanced Recovery Programme for Total Hip Replacement (THR) and / or Total Knee Replacement (TKR)

A Clinical Guideline

For use in:	Enhanced Recovery Programme for Primary Hip and Knee Replacements in Adults
By:	All Staff
For:	For use in operating theatres, Pre-admission clinic, all Orthopaedic wards
Division responsible for document:	Surgical
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Compliance links: *(is there any NICE related to guidance)*	Joint replacement (primary): hip, knee and shoulder (NG157) (2020)
If Yes - does the strategy/policy deviate from the recommendations of NICE? If so, why?	N/A

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Version and Document Control:

Version Number	Date of Update	Change Description	Author
4	28/06/2022	Changes to key people. Addition of quick reference. Focus added to objective. Get it Right First Time (GIRFT) recommendations added, and references updated.	Amresh Singh, James Wimhurst, Warwick Chan, Amy Benterman

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Contents **Page**

Trust Guideline for the Enhanced Recovery Programme for Total Hip Replacement (THR) and / or Total Knee Replacement (TKR)

Quick Guide

- Length of Stay target reinforced at all stages: Median 2 days
- Adherence to NICE / Get it Right First Time (GIRFT) enhanced recovery guidance
- Pre-habilitation information at time of adding to waiting list
- Timely Pre-operative (Pre-operative) assessment
- Pre-operative multi-disciplinary "Joint School"
- Pre-admission consenting
- Pre-operative MRSA and MSSA decolonization
- Day of Surgery admission
- Pre-operative and immediate post-operative high calorie carbohydrate drinks
- Spinal anaesthetic without opioid for majority of patients
- High volume local anaesthetic infiltration at time of surgery
- Standardized post-operative analgesia regime
- Mobilization within 2-4 hours of surgery for all patients
- Minimum 2 physiotherapy sessions per day post-operative
- Rapid progress frame to crutches to step / stairs
- X-rays on day 1 or day 2 post-operative
- Nurse-led, criteria-based discharge
- Ward / OPAL contact for post-operative issues
- Outpatients follow up at 6 weeks

Objectives

To enhance the recovery of patients having primary hip and knee replacements with a multimodal programme which facilitates early mobility and discharge.

Enhanced recovery programmes focus on the following elements: -

1. Education of patients and Health Care Professionals
2. Pre-operative Physiotherapy and Occupational Therapy information

3. Pre-operative anaesthetic and surgical assessment
4. Utilising surgical and anaesthetic techniques which facilitate early mobility
5. Excellent post-operative analgesia allowing early patient mobilisation
6. Intensive post-operative physiotherapy
7. Early discharge with appropriate back-up and follow-up
8. Incorporation of Getting It Right First Time (GIRFT) Total Hip Replacement (THR), and / or Total Knee Replacement (TKR).

Early mobilisation and discharge results in improved patient satisfaction and reduces risks of infection and thromboembolism.

Rationale / Background

Approximately 600 hip and 600 knee arthroplasties are performed at NNUH each year. In 2011, the Norwich Enhanced Recovery Programme (NERP) was introduced. Prior to NERP, the median length of stay (LoS) for joint replacements at NNUH was 8 days. This fell to 4 days within 6 months.

In 2022 our median LoS has maintained at 4 days whilst national LoS has fallen to 2.7. A major factor in this has been the transfer of fitter patients to alternative providers. With the advent of the Norfolk and Norwich Orthopaedic Centre (NaNOC) we aim to “repatriate” these patients and to improve upon our LoS whilst maintaining patient safety and satisfaction. Getting It Right First Time (GIRFT) has released guidance which has been incorporated into this document.

GIRFT recommendations

The GIRFT November 2020 document on Post COVID elective surgery recovery set out a number of key recommendations. Some of the relevant key guidance is listed below:

General

All patients should be admitted to dedicated, ring-fenced orthopaedic elective wards and all support services should be available during operating hours.

2. Each patient pathway that involves elective surgery should have the principles or culture of enhanced recovery and emphasis must be placed on such a programme.

Specialist

1. Shared decision making should be built into points along the care pathway.
2. Pre-assessment should be complete within a minimum of 6 weeks before surgery.
3. Pre-operative Education Group (Joint School) with appropriate MDT input and delivery.

4. Pre-operative therapy assessment should be undertaken.
5. Patients should be admitted on the day of surgery and admissions should be staggered.
6. Neuraxial (single spinal) rather than general anaesthesia for elective patients should be used where possible.
7. Use of joint replacements as per best practice recommendations and that 80% of primary hip replacements in patients aged 70 and over receive cemented or hybrid prosthesis.
8. A standardised post op pain management plan essential.
9. 7-day senior review should occur for all patients together with a seven-day physiotherapy service.
10. A 7-day in-patient physiotherapy service should be available.

Pre-operative phase

Undertake discussions of what should be expected regarding length of stay in hospital and recovery. A target of a 2-day length of stay for the majority of patients should be highlighted. Some patients may stay longer, others get home on the first post-operative day.

Identify high risk patients based on age and co-morbidities. These patients should be highlighted to the pre-assessment team and anaesthetic team as they should be involved in the shared decision making before surgery is undertaken in this group of patients.

There are established hip and knee MDTs in place at NNUH. At this meeting complex or revision procedures should be discussed and include discussions regarding specialist or loan equipment. The MDT is also regional and works as a functional clinical network.

Consent

The patient should be consented in accordance with Royal Collage of Surgeons (RCS) and General Medical Council (GMC) guidelines. (RCS 2018, GMC 2020)

Consent is an ongoing process that begins from the first consultation and continues through the care episode. It is not ideal to formally obtain consent on the day of surgery. Patients undergoing surgery should have the opportunity to reflect on the plan surgery and may need to ask further questions. This may be particularly necessary if there is a significant delay or if there is need to clarify the surgical plan.

There should be either a consent clinic consultation within 6 weeks of surgery or consent gained by the surgical team at the time of pre-assessment.

Patients sometimes have to be transferred from one surgical team to another to ensure equity in waiting time. It is not good medical practise that the patients meet the surgical

team for the first time on the day of surgery. After the consent stage, the patient should stay with their specific surgical team throughout their onward care.

Patient education

Education in important in the setting of joint replacement as it reduces patients' anxiety and reduces length of stay. It allows the patient a better understanding of the events in the peri and post-operative period.

The 2-day length of stay should be specifically discussed.

Education can be undertaken via Joint school, which may be face to face or will be virtual unless otherwise indicated.

In the future this may be delivered via an online platform which allows patients to view videos and disseminate information in this way. Depending on how this is delivered, it will need involvement from Occupational Therapy, Physiotherapy and Nurse specialists.

Topics to be included as per NICE guideline:

- Self-isolation guidance during the COVID pandemic.
- Pre-habilitation including exercises, lifestyle and well-being including weight management, diet and smoking cessation. Maximising functional output.
- Overview of surgical procedure, benefits, symptom management, risks and complications.
- Expectations around pain management.
- Information about the benefits of spinal anaesthetic techniques, use of music and audiobooks.
- Early mobilisation and length of stay to facilitate optimal Patient Report Outcomes Measures (PROMs) and to avoid dissatisfaction from unmet expectations.
- Preparation for hospital stay and what to bring.
- Discharge planning and the need to prepare the discharge destination safety, ease and comfort. This may include stocking up on meals, clearing clutter in the home and storing items to avoid unnecessary bending or reaching. Preparation of appropriate sleeping facilities and any support the patient may require from friends and/or family should also be discussed.

Pre assessment

This should be completed within 6 weeks of surgery and should include a pool of pre-assessed patients who can fill in last minute cancellations.

Factors that should be optimised before considering surgery:

- Anaemia – Patients should be screened. Pre-operative anaemia has been shown to increase mortality, acute kidney injury and infection. (Munting et al 2019) The transfusion of a single unit in surgical patients has also been shown to increase mortality and morbidity. (Ferraris et al 2012)
- The locally agreed Hb should be > 120. If patients are found to be anaemic, they should be referred back to their GP for investigation and treatment of their anaemia.
- Diabetes – HbA1c should ideally be <69 mmol/l. If above this level, patients will be referred back to their GP or diabetic team for optimisation.
- Infection – Skin examination of the lower limbs. MRSA and MSSA screening and decontamination protocols.
- Medication review - Guidelines on how medications should be administered or omitted in the peri-operative period for common medications such as statins, ACE inhibitors, aspirin, anti-coagulants. Patients should be seen by the clinical pharmacy team who obtain a full medication history and provide advice in the pre, peri and post-operative period.

The day of surgery

Patients should be admitted on the day of surgery. Admissions should be staggered to minimise pre-operative fasting and reduce anxiety.

The consent form signed earlier in the process should be confirmed with the patient on the day. The surgical site is verified and marked. The mark should be visible after skin preparation and draping so it can be checked prior to skin incision.

VTE risk assessment should be completed.

Peri-operative fasting

Patients should stop taking solid food 6 hours before surgery but continue with clear fluids up to surgery as per local guidelines. This entails 30mLs of water per hour until the time of surgery.

The Norwich Enhanced Recovery Programme (NERP)

NERP medication guide

Take note of allergies, regular medications and specific contraindications

- Avoid modified release oxycodone if regular medications include more than simple opioids (i.e., already on a regular dose of slow-release morphine or fentanyl patch or buprenorphine patch with strength > 35 microgram/hr) – discuss with anaesthetist or orthopaedic pharmacist regarding post-operative pain regimen.

- When patients admitted on fentanyl patch – consider fentanyl, patient-controlled analgesia (PCA or increase patch dose as part of step down.

- Consider renal function – see CrCl (creatinine clearance) notes within table.

- Patients on an established dose of tramadol should be managed individually and potentially have this continued alongside the NERP regime of oxycodone MR. This is to minimise the risk of serotonergic withdrawal.

- Modified release oxycodone should be avoided in patients with sleep apnoea +/- uses Continuous Positive Airway Pressure (CPAP) – use PCA as alternative or immediate release opiates.

NERP protocol medications			
	Medication	**Dose / route**	**Other considerations**
Pain relief	Paracetamol	1g QDS PO/IV	If patient less than 50kg - Give 500mg QDS PO
	Oxycodone modified release (MR)	10mg BD PO for 2 doses post op (8pm and 8am)	Dose ↓ to 5mg BD if age >80 years OR CrCl < 30mL/min If CrCL < 15mL/min consider immediate release liquid at low dose i.e. 1.25mg QDS plus prn
	Morphine sulphate 10mg/5mL liquid (Oramorph® 10mg/5mL)	5-10mg 2 hourly when required PO**	Dose if age >80years 5mg 2 hourly OR if CrCl < 20mL/min 2.5-5mg 4 hourly (If not tolerated consider Oxycodone 5mg/5mL Liquid can be prescribed as alternative to morphine liquid – N.B. twice as potent therefore half the dose is required)
	Review pain Day 1 post op: *aim to step down after 2 doses of oxycodone (If patient not controlled, consider further dose up to 3 additional doses of oxycodone MR – this may be needed for TKRs)*		
	Step down option 1 Codeine phosphate **OR**	15-30mg QDS PO	Caution in patients already prescribed opiates or have intolerance or allergies to opiates First dose at 1800 POD1.
	Step down option 2 Meptazinol **OR**	200mg QDS PO	
	Step down option 3 Morphine liquid 10mg/5mL	2.5-5mg QDS PO	
Laxatives	Lactulose	15ml BD PO	Avoid if history of diverticulitis and prescribe Laxido® as alternative. Can also use patients' normal laxative as alternative.
	Senna	2 tablets ON PO	Avoid in patients with a history of diverticulitis
	Glyceryl Suppositories	8g rectal as required	
Anti-em	Cyclizine	50mg 8 hourly PO	PRN med
	Ondansetron	4mg 8 hourly PO / IV / IM	PRN, Caution in patients at risk of prolonged QT interval

et ic s			
** If pain not well controlled and patient tolerating morphine liquid the dose can be increased to 10-20mg 2hourly N.B. Patients with pain not controlled with the above regime - Gabapentin can still be used as neuropathic pain relief if required. A titrating dose as per BNF should be prescribed with a review date of 1-2weeks post op. If renal function CrCl<15mL/min, seek further advice from pain team.			

Patients with chronic pain (i.e., patients who have been taking opioids for some time prior to the operation) may require individualised management. A Patient Controlled Analgesia (PCA) pump may be considered as an alternative to oxycodone modified release. These patients often have unpredictable analgesic requirements, and their needs are better served by a PCA. These patients should also continue their pre-existing opioids into the post-operative period. It is important that analgesia patches stay in place and are re-applied as prescribed. Please discuss this with anaesthetist at the time of surgery and in the post-operative period contact the Orthopaedic pharmacists or Pain Management Service within normal working hours

Patients with sleep apnoea should have a PCA instead of the oxycodone modified release. If their sleep apnoea is severe, they should be managed on HDU.

Anaesthetic technique

In Theatre			
Anaesthesia	Single shot spinal +/- target controlled infusion for sedation (OR a light GA if anaesthetist prefers)	Bupivicaine 0.5% 2.5-3.0 mL Propofol Avoid opiates in the spinal	
Anti-emetics	Ondansetron	4 mg IV	Contra-indicated with apomorphine
	Dexamethasone	8 mg IV	
Pain relief	Diclofenac	75 mg IV	Consider contra-indications and cautions for use
Antifibrinolytic	Tranexamic acid	1g IV to minimise blood loss	Half-life is 120 minutes so give just before tourniquet goes down for TKR and just after incision is made for THR (withhold if PMHx of VTE)
Additional instructions	Antibiotics as per local guidance No urinary catheter.		

Fluids	Limit intraoperative fluids to ~ 1 litre intraoperatively if possible
TKR and THR	
	Infiltrate with 100-200mL of 0.2% ropivacaine at end of operation.

TKR Local Infiltration technique

100–200 mL of Ropivacaine 0.2% is used (2 - 2.5mL/Kg max 200mL). The injection is made in three stages. The first injection is done after the bone surfaces have been prepared, but before the components have been inserted, since access to the posterior capsule is limited once the components are in place.

20-40 mL is injected through the joint from the front to a depth of 5 -10 mm into the tissues around the posterior joint capsule, using a systematic sequence from one side to the other to ensure uniform delivery to these tissues. Care is taken to avoid the midline neurovascular structures. 20mL is injected onto the anterior surface of the femur through the supra-patellar pouch. A further 20-40mL is injected into the deep tissues around the medial and lateral collateral ligaments.

The second injection is done after the components have been inserted, but before both wound closure and tourniquet release. 20-40mL is injected into the quadriceps tendon and medial soft tissue release.

The third injection of 20–60 mL is made into the subcutaneous tissue prior to closure. Multiple injections are made in a systematic sequence, approximately every 25 mm around the wound. The needle is inserted parallel to the wound edge to a depth of about 25 mm and injection is done as the needle is withdrawn.

The surgeon may insert a catheter in the knee for post-operative infusion of 0.2% Ropivacaine at 8ml/h for 24h, although this is no longer frequently utilised.

THR Local Infiltration technique

100–200 mL of ropivacaine 0.2% is injected in stages (2 - 2.5mL/Kg). The first injection is made after insertion of the components, the second one after closure of the deep fascia and the final one immediately before the skin is sutured. The first injection of 40-60mL is made into the tissues around the rim of the acetabulum, focusing on both the joint capsule, if it remains, and around the exposed gluteal and short external rotator muscles. The injection is done using a systematic sequence around the acetabular rim to ensure uniform delivery to these tissues.

The second injection of 40-80mL is made into the fascia lata and IT band.

Finally, multiple subcutaneous injections of 20-80mL are done in a systematic sequence every 25 mm or so along the length of the exposure. Care is taken to infiltrate in a fan-wise fashion around the apices of the wound, so that traumatized tissues in these locations are covered. The needle is inserted parallel to the edge of the wound to a depth of about 25 mm and injection is done as the needle is withdrawn.

Surgery

World Health Organisation (WHO) team brief at the start of the list should be done so that the team is familiar, and any early issues identified and dealt with. Routine WHO checklists at the start and end of the case are carried out. (www.who.int...)

Use of ODEP 10A rates prosthesis with a NJR proven track record should be used. There should be a minimal need for loan kit in the setting of primary arthroplasty.
As per GIRFT guidelines, 80% of patients over 70 should have a cemented or hybrid total hip.

Post-operative Care

Are recorded as follows-

NEWS2 score performed

Pulse, blood pressure, respiratory rate

Pain score (0-3)

Sedation score

Nausea and vomiting score

At the following intervals:

- On return to ward
- 30 minutes after return to ward
- Hourly for 2 hours
- 2 hourly for 4 hours
- Thereafter 4 hourly for 12 hours.

Hip Precautions

For patients who have had a spinal anaesthetic, a Charnley wedge should be considered until the effects of the spinal have worn off. After this point they are no longer necessary.

No routine hip precautions are otherwise necessary. (Tetreault et al 2020, Crompton et al 2020) The patient can sleep on either side if they wish, with a pillow between their knees if this helps with pain.

They can sit on a chair of adult size and height and do not need raised chairs.
The aim is to keep the patient in a comfortable range of movement. They should be advised to avoid excessive hip flexion (>90 degrees) and rotation for the first six weeks after surgery.

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Physiotherapy and Mobilisation Day of Surgery

The most important aspect of Enhanced Recovery is to enable patients to independently perform routine activities as early as possible.

National Institute for Healthcare and Clinical Excellence (NICE) guideline for Joint replacement (primary): hip, knee and shoulder (NG157) (2020) recommend that a physiotherapist or occupational therapist should offer rehabilitation, on the day of surgery if possible and no more than 24 hours after surgery, to people who have had a primary elective hip and knee replacement. Rehabilitation should include:

- Advice on managing activities of daily living.
- Home exercise programmes.
- Mobilisation for people who have had knee or hip replacement.

An initial physiotherapy assessment will take place at 2-4 hours after return from surgery.

Providing that the patient's anaesthetic effects have worn off either from the spinal or GA, the patient should be mobilised within four hours after surgery by a member of the Integrated Therapy team. (Day 0).

Nursing staff should have competency in day 0 mobilisation.

On the first postoperative day and thereafter, if a patient feels dizzy, ensure that their Hb > 80 and medications reviewed as these can also cause dizziness. Further attempts to mobilise them should be made.

Patients will be encouraged to remain out of bed as much as possible, dressed in their own day clothes where practical to highlight the fact that they are in their rehabilitation phase.

Patients will be encouraged to participate and undertake their exercise programme as prescribed by the physiotherapy team.

Patients will mobilise with support from the ward team at least twice on the first post-operative day with the aim to achieve independent mobility for toileting needs on day 1 post op. Once the therapy team assess that the patient is stable with their walking aid on crutches without physical support, they will be encouraged to mobilise independently with aids on the ward as appropriate.

Patients will be reviewed at least twice daily by the Physiotherapy team to ensure progression and to achieve criteria/goals for discharge. Intervention will include advice and education on self-directed rehabilitation providing a clear understanding of their rehab goals, pain and oedema management, prescription of exercises to optimise range of movement, strength and balance and the importance of independently completing their prescribed exercises to achieve these goals, gait re-education, integration of mobility into

functional tasks and arrangements for appropriate follow up care after discharge in conjunction with the wider multidisciplinary team (MDT).

Discharge

If appropriate, discharge within 2 days will be routinely targeted, although some patients may need to stay longer, and some will be suitable for discharge on Day 1.

The discharge criteria will be-

- Patient ambulant with walking aids
- Pain controlled on oral analgesia
- Voiding urine without catheter.
- Wound dry
- Post-operative X-ray performed and reviewed by surgical team.
- Post-operative bloods satisfactory (FBC and U&E)
- Therapy equipment in place if needed.
- Physiotherapy, Occupational Therapy and patient individual goals achieved.
- Referrals to Therapy Outpatients services, Community services and Social Services completed as appropriate.
- Surgical, wound and therapy follow-ups in place.
- TTO in place including VTE prophylaxis.
- A point of contact is provided for advice and support if required following discharge.

Follow-up

Wound oozing should have ceased by 72hrs. Patients should be advised that the dressing should not be changed or disturbed. Patients should be provided with a clear single point of contact if they have concerns in the post-operative period (Orthopaedic Practitioner Advice Line – OPAL **01603 287795**).

Suture / clip removal or wound review should be at the GP surgery with Practice Nurse at 12-14 days post-operative.

Follow up should be at 6 weeks post-operative and if there are no clinical concerns, the patient can be discharged if over 75 with an ODEP 10A implant.

If there is any clinical concern or the case was complex, then follow up may be made at 1 year or an earlier interval as required.

For those under 75, assessment may be recommended at 7-10 years post op and then every 3 years thereafter. Patient Initiated Follow Up (PIFU) should be considered for this group.

For implants with a <10A rating further surveillance may be required as recommended by "Beyond Compliance".

Therapy follow-up (as per NICE guidelines) Joint Replacement (primary): hip, knee and shoulder (NG157).

Offer individualised outpatient rehabilitation should be offered to people who have ongoing functional impairment leading to specific rehabilitation needs.

Please ensure this is in place at the 6-week review referring to outpatient therapy services as required.

Clinical audit standards

All patients will be audited for length of stay.

All complications will be presented to the monthly Orthopaedic Governance Meeting.

Length of stay data will be reviewed at the monthly NERP MDT meeting.

Summary of development and consultation process undertaken before registration and dissemination

During its development, this guideline has been circulated for comment to: representatives of the Anesthetic department, the Orthopaedic department, the Pharmacy department, Senior Elective Nursing staff, the Physiotherapy department and the Occupational Therapy department.

In 2022 this document would was reviewed and amended and it was discussed with a variety of sub specialties including Occupational Therapy, physiotherapy, Pharmacy, Anaesthetics, and where possible all comments have been included.

This version has been endorsed by the Clinical Guidelines Assessment Panel.

Distribution list / dissemination method

Trust Intranet, Orthopaedic wards, Orthopaedic theatres Recovery, Orthopaedic surgeons, orthopaedic anaesthetists, Acute Pain Team, physiotherapy department, occupational therapy department.

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Information for Nurses and Junior Doctors looking after patients with Local Anaesthetic Infusions (LAI) for knee and hip replacements as part of the Enhanced Recovery Programme

If your patient has had a catheter inserted into their joint by the surgeon. He/she has had 150-200 mLs of 0.2% Ropivacaine injected around the joint at the time of surgery and for TKRs we are infusing 8 mLs/hour of Ropivacaine 0.2% via the wound infusion catheter for 24 hours postoperatively.

Some patients may require a top-up bolus of local anaesthetic solution last thing at night or in the morning before physiotherapy. (Some may require a top-up bolus in recovery. If this is the case call the patients anaesthetist) The McKinley pump is programmed so that 2 or 3 post-operative boluses can be given by an anaesthetist. If you feel your patient needs a bolus please inform the enhanced recovery sister on bleep ****, in working hours, or the anaesthetic registrar on 0900 at night.

Potential Hazards:

Wound catheter migrating

Please check to see if the wound catheter has been properly secured. It should be under a transparent adhesive dressing.

Local Anaesthetic toxicity

All the published studies suggest that local anaesthetic toxicity is very unlikely to occur It is no more likely with epidural infusions.

However, the signs of local anaesthetic toxicity are:

- Numbness and tingling around the mouth.
- Confusion / vagueness / restlessness.
- Twitching.

If any of the above signs occur - stop the infusion **immediately** and contact the anaesthetist.

Monitor NIBP, oxygen saturation and heart rate.

If cardiac arrest occurs commence CPR drill.

Ensure that intralipid is available on the cardiac arrest trolley as this is a specific antidote to local anaesthetic toxicity.

Appendix 2

Online resources for Orthopaedic Patients awaiting surgery

Active Norfolk

On this page you can find top tips for keeping yourself healthy through physical activity, as well as more specific information about how it can be used to manage and improve some long term health conditions.
https://www.activenorfolk.org/your-health

Arthritis Action Website

Arthritis Action is a UK charity giving hands-on, practical help to improve the quality of life of people affected by arthritis. They offer an integrated self-management approach, which looks at both the physical and mental health impact of living with arthritis. They support people living with musculoskeletal conditions through healthy eating advice, mental health resources, pain management techniques, local groups, and exercise advice and resources
www.arthritisaction.org.uk

Getting as fit as possible for surgery

In the run up to your surgery, there are things you can do to get ready and this will also help you make a better recovery. The same things that will help you get fit for surgery will also help you if you ever catch COVID-19 and so now is a good time to do these things.

Below are some health topics that can really make a difference. Even making these changes just 6 weeks before your operation can be a real help but these are changes that could help you for the rest of your life.

Smoking

It is in your best interests to stop smoking as soon as possible, especially before surgery. This will reduce the risk of any breathing problems during and after surgery.
https://www.nhs.uk/conditions/stop-smoking-treatments/

Alcohol

Drinking too much alcohol may slow your recovery and also make it more likely that you get an infection. Men and women are advised not to drink more than 14 units of alcohol a week, and we ask our patients to try to keep to these limits. If you would like more information, please visit these webpages:

https://www.nhs.uk/oneyou/for-your-body/drink-less/
https://www.nhs.uk/conditions/alcohol-misuse/

Diet

Eating a healthy diet will improve wound healing and reduce muscle weakness and tiredness during your recovery. A good diet will also help you fight infection.
https://www.nhs.uk/live-well/eat-well/

Obesity and weight loss

Trying to lose weight can be difficult, yet the best way to help tackle this is to eat a healthy calorie-reduced diet and exercise regularly. Even losing a small amount of weight before surgery will help. Set yourself a goal that you can make.
https://www.nhs.uk/conditions/obesity/

Physical activity – moderate level

We should all take some form of moderate exercise every day, although we appreciate that this can be difficult for patients with arthritic conditions. Exercise will make you stronger, reduce breathing issues and build up stamina. These will all help you get better more quickly.
https://www.nhs.uk/live-well/exercise/
https://www.nhs.uk/better-health/

Diabetes

If you have diabetes, we ask that you try to keep your sugar levels within the limits as agreed with your doctor or nurse. Poorly controlled diabetes can be a serious concern during surgery. Please don't hesitate to talk to your clinical team in the weeks leading to your surgery if you are concerned. We recognise things may not be perfect but taking steps to reduce the risks is all we can ask our patients to do.
https://www.nhs.uk/conditions/diabetes/

Mental health and wellbeing

Many patients face concerns and anxieties before going into hospital, or mentally dealing with an ongoing condition or illness. There are many resources that can help to prepare yourself mentally.
https://www.nhs.uk/conditions/stress-anxiety-depression/improve-mental-wellbeing/

Managing pain

Many patients get aches and pains in their muscle and joints. This resource will help you to manage these.
https://www.csp.org.uk/conditions/managing-pain-home

Further information

If you require any support for patients with learning disabilities or learning difficulties prior to surgery or treatment, please see the link below for information.
https://www.nhs.uk/conditions/learning-disabilities/