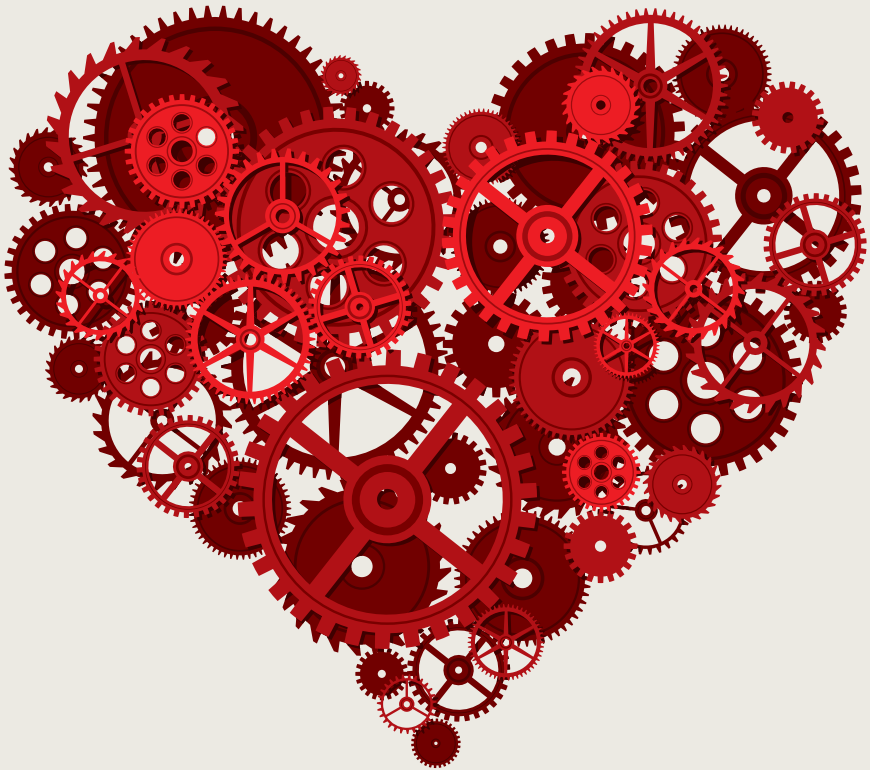




University Hospital
Southampton
NHS Foundation Trust

Cardiac surgery

Information for patients



This booklet contains information about your recovery from cardiac surgery.

We know that for many patients, going home after surgery can be a great relief but it can also be quite daunting. We hope this booklet will help to answer some of the questions you are likely to have.

Please remember that while you are recovering from surgery it is perfectly normal to experience good and bad days, both physically and emotionally.

Advice line

If you have any questions or require advice after leaving hospital, you can telephone the cardiac rehabilitation team on: **023 8120 6673** (Monday to Saturday). If you reach the answerphone, leave your name and telephone number and we will call you back as soon as possible.

Please note, this number is not for medical emergencies.

You can also contact the ward you were staying on:

Ward:

Cardiac surgeon secretary's telephone number:

Your GP and local cardiac rehabilitation team will be notified of your operation and your discharge home.

Movement and rehabilitation

During your hospital stay you will have been seen by an occupational therapist and/or a physiotherapist. You will have carried out some rehabilitation exercises with them, including practising how to get on and off a bed and in and out of a chair without using your hands or arms to help you. You will have also had the opportunity to discuss your home situation with them, to ensure you will be able to manage when you return.

Moving, lifting and activity during your recovery

During your heart surgery, your surgeon made a cut to your sternum (breastbone) known as a sternotomy. While you are recovering from the operation, it is very important to protect your sternum to allow it to heal properly and avoid possible complications.

In the past, patients recovering from sternal procedures (involving a cut to their breastbone) were advised to take 'upper limb precautions'; restrict their arm movements, including pushing and pulling; and avoid lifting anything heavier than 'half a kettle' or 5lbs for 12 weeks after surgery. However, you will find that this is no longer the case. Your rehabilitation specialists will provide more information about what this means for your recovery, but the key points are outlined below:

At the beginning of your recovery, when moving or lifting, keep your upper arms close to your body, as if you were in an 'imaginary tube'. The graphics on page 5 illustrate this for you.

By keeping your upper arms inside the imaginary tube, you will shorten the length of your outstretched arm, reducing pressure on your sternum.

Weight restrictions

There are no weight restrictions. The previous advice you may have heard about only lifting half a kettle no longer applies. Instead, you can lift or carry anything, providing your pain level doesn't increase during the activity.

Be guided by your pain level. Build up gradually. If an activity doesn't cause an increase in pain, then its safe for you to do it.

You should remember to: 'Keep Your Move in the Tube' when:

- turning over or getting out of bed
- pushing yourself up out of a chair
- opening or closing a door
- carrying or lifting
- performing any other load bearing activity involving your arms.

For non-load bearing activities, such as personal care, you can move out of the 'tube', as long as your pain level doesn't increase during the activity.

Your cardiac team will:

Discuss 'mindful movement' with you (this involves movement out of the tube with resistance, for example picking up a kettle, hoovering, lifting an item off the shelf) and discuss how and when you can gradually move 'out of the tube', providing your pain levels remain the same.

Show you upper limb exercises and posture awareness to help you achieve a full range of movement and faster return to your normal activity levels.

Encourage you to aim for progression in what you can do. You'll be advised to let your pain level guide the activities you can perform and when to progress.

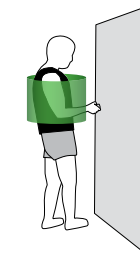
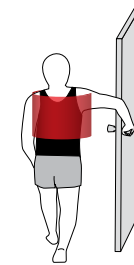
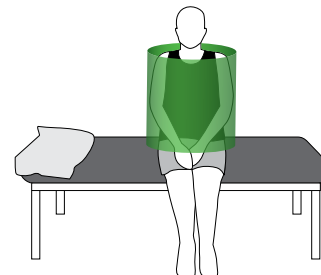
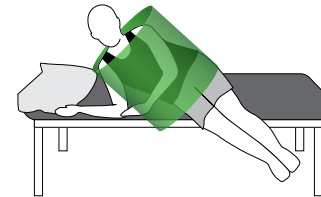
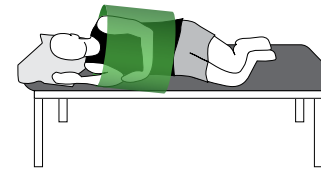
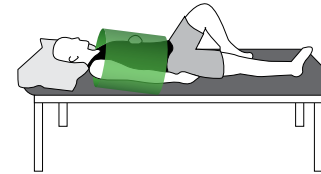
Keep Your Move in the Tube diagram

The diagram on the next page shows a person carrying out activities inside **green tubes** and **red tubes**.

The green tubes are 'in the tube' activities. They demonstrate how you can perform this activity with minimal pressure on your sternum.

The red tubes are 'out of the tube' load-bearing (pushing/pulling) activities. Performing the task in this way can increase pressure on your sternum. However, if your pain level remains the same as, or below the pre-activity level, then it is allowed.

If your pain increases however, you should stop the activity or adjust your arm position (shorten the lever arm by getting closer to the object, returning your movement to the tube).



Graphics ©2018 Baylor Health Care System

Be guided by your pain level

No matter what is being attempted, if your pain increases, then that is a sign that it's too soon for that specific activity. Continue with the other activities that don't increase your pain, and build up slowly and steadily.

If you are concerned about how any of this will affect how you will manage at home, please ask your nurse to refer you to the occupational therapist before you are discharged.

Shoulder exercises

In the meantime it is important that your arms and shoulders don't become stiff. Here are some simple exercises to help keep them loose.

- 1. Shrug your shoulders up towards your ears, hold them there, then relax.**
- 2. Roll your shoulders (not elbows!) forwards several times, then backwards.**
- 3. Slowly raise one arm above your head, then down again. Repeat with the other arm.**

Please note, you are allowed to raise your arms over your head briefly, provided that you do not hold, lift or push them.

If an exercise causes pain, try it more slowly and gently or avoid that exercise for a few days before trying it again.

Remember, carry out exercises slowly and avoid any movements that cause pain or clicking of your breastbone.

Caring for your wound

Before you are discharged from hospital, your surgical wounds will be checked and dressings normally removed. If your nurse feels it is necessary for your wound to remain dressed, they will make an appointment with your practice nurse or the district nurse to check your wound and redress it as appropriate.

It's important that you look at your wound every day. Contact your GP as soon as possible if it shows any of the following:

- redness or appears 'angry-looking'
- heat or swelling
- change or increase in the amount of pain
- pus or discharge
- an unpleasant smell
- any new opening
- clicking or grinding movement in your breastbone

Once your wounds are clean and dry, it is safe to get them wet during washing or showering. There is no need to avoid using the bath or shower as normal but don't soak for too long. Showers are better initially as pulling or pushing yourself out of the bath puts excessive strain on your breastbone.

Avoid using perfumed soaps, cream or powder on your wound as this can cause irritation. Be gentle when drying your wounds and avoid rubbing them.

Your scars may feel itchy or numb as they are healing but this is normal. Try to avoid scratching or picking at your wounds as this can introduce infection. You may notice a swollen area at the top of the sternal wound. This will reduce and settle as the wound heals.

Managing your wound discomfort and pain

It is perfectly normal to experience pain from your wounds for some weeks following surgery, and to experience pains and stiffness around your neck, chest and shoulders.

Women may feel more comfortable wearing a bra (but it's best to avoid those with underwiring).

Continue to take pain-relief medication such as paracetamol for as long as necessary. Keeping your pain under control will help you to keep mobile, practice your deep breathing exercises and cough up any secretions from your chest (phlegm).

- **Have some pain-relief medication by your bed with a glass of water ready to take 20 minutes before you get up in the morning.**
- **Taking some pain-relief medication before you go to bed may help you get a good night's sleep.**

If you have been advised to wear a post-thorax support vest

The post-thorax sternum support vest takes stress off the sternum wires and prevents movement of the two sternum halves. The vest acts as a plaster cast would on a broken bone. The post-thorax vest must be worn day and night for maximum benefit, until the sternum has completely healed (minimum of six weeks).

A common problem with the vest is that it can ride up on the chest, pulling on the armpit and so feeling tighter. If this happens, the jacket can be unzipped, pulled down at the back and re-fastened. If you are uncomfortable, discuss these issues with your nurse or surgical case manager.

The post-thorax vest must be washed and tumble dried at less than 70 degrees Celsius. The pads can stay in the jacket for washing and drying.

Activity

It is normal to feel anxious when you first return home and it is best to stay indoors for the first two days. On the third day, go for a short walk for no more than five minutes. This could simply involve walking around your garden. Gradually build up the distance you can walk. Increase the time you are walking by five minutes every two or three days. Remember:

- Start each walk slowly
- Build up to a brisk pace
- Finish by slowing back to a steady pace

Goal: To be able to walk briskly for 30 minutes, five days a week, six weeks after leaving hospital.

The hardest part is usually stepping out through your front door. Once you do that you will more than likely want to continue.

Exercise is an important part of your recovery. It will help your body to heal, increase your overall fitness, improve your sleeping patterns and reduce levels of stress following your surgery. Walking is the safest and best form of exercise. Remember that it's normal to be a little breathless when walking and this will improve as you get fitter. Don't let bad weather stop you but please avoid icy conditions. You do not need to avoid stairs.

Preventing blood clots

Some patients may require anti-embolism stockings (AES). If you have been wearing support stockings in hospital, continue to do until you are fully mobile. However, please do not attempt to pull the stockings on or off yourself. Your stockings can be removed for a maximum of 30 minutes in a 24-hour period. If you have been given anti-embolism stockings to wear at home you should have also been given a factsheet about them. If you haven't, please ask the nurse looking after you for one.

Machine or handwash your anti-embolism stockings up to 40 degrees, and tumble (cool) or line dry them. **Do not put them on a radiator.**

Emotion

Patients experience a variety of responses to cardiac surgery. These can include:

- Mood swings
- Crying for no apparent reason
- Nightmares
- Lack of concentration
- Feeling low in mood
- Anxiety

These are all normal reactions to major surgery and should gradually resolve. If you are experiencing any of the above for a prolonged period of time, please discuss them with your GP or cardiac rehabilitation nurse.

Sexual activity

No restrictions on having sex are necessary, though it's a good idea to build up gradually, in the same way as you build up to normal levels of other kinds of physical activity. Find a position which is comfortable for you, remembering not to place stress on your chest wound or restrict your breathing. It helps to adopt a relaxed attitude to sexual activity while things get back to normal.

Sleep

It may take some time to get back into your normal sleeping pattern. Remember:

- You can sleep in any position that you find comfortable.
- You may find you want an afternoon nap. This is fine but try not to stay in bed for too long as you may then have difficulty sleeping at night.

Smoking

Do not smoke. There is no safe amount. Cigars, roll ups, electric cigarettes, pipes and cigarettes (with or without filters) all allow chemicals into the bloodstream which are harmful to the lining of the arteries. They also raise the risk of blood clots by making the blood sticky, which dramatically increases the likelihood of any grafts blocking. Carbon monoxide, a gas released when tobacco burns, reduces the amount of oxygen the blood carries to the heart, so when you smoke, the heart is working harder and receiving less oxygen. If you continue to smoke it increases the risk of further heart problems.

The cardiac rehabilitation nurse will discuss smoking-related issues with you and a referral can be made to a smoking cessation team if necessary.

If you are struggling with withdrawal symptoms at the moment please tell the nurse looking after you. Nicotine replacement therapy can generally be prescribed.

NHS Smokefree stop smoking service: **0300 123 1044**

Diet

Your appetite, sense of smell and sense of taste can all be affected during the recovery period after surgery. These should however return to normal. In the first few weeks after your operation it is important to eat a balanced diet. You should not try to diet or lose weight during your initial recovery period as you will need to regain your strength. You may not feel like eating large meals so it's important to eat small snacks throughout the day.

Having a healthy diet doesn't mean you have to eat less but it does require you to think about the types of food you buy and the way you cook them. A good diet for the heart is a Mediterranean-style diet (more fruit, vegetables and fish; less meat, and olive oil instead of butter and cheese).

- Aim to eat at least five portions of a variety of fruit and vegetables every day. Different fruits and vegetables contain different combinations of vitamins and minerals, so aim to eat a variety.
- Cut down on the amount of fat you eat, replace saturated fats with unsaturated fats. Use low-fat spreads and vegetable oils (such as olive oil or rapeseed oil) instead of butter, hard margarine or lard. Replace full-cream milk with skimmed or semi-skimmed milk. Low-fat yogurts or fromage frais should be used instead of full cream varieties.
- It is recommended that you eat two to four portions of oily fish a week, such as salmon, trout, fresh tuna, herring, mackerel, pilchards and sardines.
- Reduce the quantity of meat in your diet. Remove the skin from chicken and fat from meat before cooking.
- Grill, steam, microwave or bake. Avoid frying.
- Eat plenty of foods rich in fibre, such as wholegrain bread, cereals, pasta and rice.
- Limit the quantity of salt you eat, by using less in cooking and at the table.

Cholesterol

We recommend that your cholesterol is kept below 4.0mmol/L. Ask your GP to check your cholesterol level three months after surgery, particularly if you have been started on cholesterol-lowering medication during your hospital stay. You may need further advice if your level is high.

Medications

You will be discharged with 28 days' supply so before these run out please see your GP for a further supply. The nurse on the ward will explain the reasons for your medication and how to take them.

Your surgeon may instruct your GP to alter your medication once you are home. This will be discussed with you.

All medication will be reviewed at your outpatient appointment.

Alcohol

Moderate drinking (one or two units a day), may offer some protection from coronary heart disease, particularly in men over 40 and women who have been through the menopause. We do not advise you to start drinking if you don't already. There are safer and healthier ways to protect your heart: start taking more physical activity, eat a healthy, balanced diet and stop smoking, for example.

If you drink alcohol, it is important to keep within the guidelines:

- Men and women should not regularly drink more than two to three units of alcohol per day.

These guidelines apply whether you drink every day, once a week or occasionally. If you drink too much, allow your body 48 hours to recover. Have at least two alcohol-free days a week.

How much is one unit of alcohol?

- **One small glass of wine (100ml)**
- **Half a pint of normal strength lager, beer or cider. Please be aware that many beers and ciders have a higher volume than this.**
- **A pub measure of spirits (25ml)**
- **A small glass of sherry or port (50ml)**

If you are prescribed warfarin therapy you may drink small amounts of alcohol regularly but must avoid binges.

Driving

It is a legal requirement that you not drive for at least four weeks following your surgery. After this, only drive short distances until you regain your confidence. If driving causes any chest discomfort, stop and try again two weeks later.

There is no need to inform the DVLA if you hold an ordinary driving licence and have made a full recovery from your heart surgery, provided there are no other disqualifying conditions such as heart rhythm abnormalities. Please ask for individual advice if you are unsure. Insurance companies vary, but some require you to inform them that you have had cardiac surgery.

Patients with LGV or PCV licences must inform the DVLA at Swansea that they have had heart surgery. These licences are automatically withdrawn following surgery. You may reapply for a licence but please discuss this with your surgeon or cardiologist.

You do not need to avoid travelling on a bus. You must ensure you have a seat, however, so avoiding rush hour may be sensible.

Please note, you are not exempt from wearing your seat belt at any time in any vehicle, so we suggest that you use some form of cushioning between your chest and the seat belt for your own comfort.

Work

We advise patients to stay off work for at least eight weeks. Most people return to light work after eight weeks and more physical work after 12 weeks (when the breastbone has healed). If possible, you should have a phased return to work (with reduced hours initially) and build up to working normal hours. You will need to discuss this with your GP and your employer. If your employer will not allow this, only return to work after 12 weeks.

Travel

Generally, we advise patients not to travel abroad for roughly eight weeks after surgery, and until they have had their outpatient follow-up appointments. Discuss this with your cardiac surgeon or a member of the cardiac rehabilitation team. If you are going on holiday, it is advisable to wait for 12 weeks following surgery as you will then be able to swim and generally be more active.

The British Heart Foundation produces a list of sympathetic insurance companies. Ask the cardiac rehabilitation team for details or see the British Heart Foundation website: www.bhf.org.uk.

Follow-up appointments

You will be seen as an outpatient approximately six weeks following your surgery. This may be with your consultant surgeon at this hospital but if you are from out of the area, it's more likely that you will be seen locally by the cardiologist who referred you. You will be notified of these appointments by letter.

Rehabilitation

Research has shown that attending a rehabilitation programme can significantly reduce your risk of further cardiac events and help you get the most out of cardiac surgery.

The rehabilitation nurse who visits you on the ward will give you details of your nearest venue. The programme is provided for you and is designed to improve your physical fitness, confidence and psychological wellbeing.

The courses usually run over six to 12 weeks and comprise three elements:

- an exercise programme
- health education
- relaxation

The programmes are supervised by trained staff who are there to help and support you through the course.

Attendance is **strongly** recommended, although we realise that it will not be appropriate in all cases. You are generally able to attend a cardiac rehabilitation programme eight weeks following your surgery. To do so, please contact your local cardiac rehabilitation team several weeks before this date to book your place, if they have already not contacted you.

Following the cardiac rehabilitation programme, or if you have been informed that you are not eligible for cardiac rehabilitation, you will have the opportunity to progress to an exercise referral programme, which takes place in your local leisure centre and can be organised through the rehabilitation nurse or your GP.

Support groups

Some people find attending a heart support group helpful. These groups offer social contact with people who have the same or similar heart conditions. They also feature guest speakers who offer advice on various subjects. The British Heart Foundation has a directory of support groups, so you should be able to find one in your local area.

General information for valve replacement and repairs

Dental treatment

It is vital that you see your dentist every six months for a dental check-up. Antibiotics are essential prior to any treatment, (fillings, scaling, polishing and extractions, for example). These prevent infections in the mouth entering the bloodstream during the dental procedure, which could lead to an infection on your valve. Ask your dentist to contact your surgeon's secretary if they have any concerns.

Other medical procedures

Antibiotics will also be essential if you require other medical procedures or operations. All medical staff treating you should be informed that you have had valve surgery.

Temperature

If you feel unwell or have an unexplained high temperature please contact your GP.

If you have had a mechanical valve

Mechanical valve noise

You may be aware of your valve making a ticking noise, particularly in a quiet situation or when lying in bed at night.

Anticoagulation therapy

It is important following a mechanical valve replacement that the blood is thinned to prevent clots developing on the valve. The drug most commonly prescribed to thin blood is warfarin (Marevan) and it is advisable to take it at the same time every day.

The INR (international normalised ratio) is the unit used to measure blood thickness. The INR level is very important and you should have been notified of the correct level for you before leaving hospital. Please ask if you haven't. You will need regular blood tests to ensure that your blood is within this range. These will be arranged either by your GP or your local hospital. The length of time between blood tests will vary, depending on your current INR and how stable it is.

You will be given a yellow 'Anticoagulation Therapy Record' booklet before you are discharged. This will be included with your drugs to take home. It explains the procedures involved during warfarin treatment and serves as a diary to record your warfarin doses and INR levels. Keep this with you at all times as any doctor you visit may want up-to-date information on your INR level.



The story so far...

Wessex Heartbeat is a registered charity dedicated to providing support to the Wessex Cardiac Centre (WCC), its patients and their loved ones so they can receive the best possible care and support.

Wessex Heartbeat has raised over £16 million, helping the WCC become and remain a Centre of Excellence for cardiac care in the UK. We receive no funding of any type and rely solely on the donations of our generous supporters.

Key Services

We fund Heartbeat House, a home from home providing free accommodation for the Wessex Cardiovascular and Thoracic Centre patients' relatives, located just a few minutes walk from the hospital. For information about staying at Heartbeat House please ask the Ward Sister or phone Heartbeat House on 023 8039 0548.

Wessex Heartbeat are continually funding projects to ensure the Centre remains at the forefront of cutting edge services. Wessex Heartbeat continues to help patients, loved ones and medical staff in many ways, including:

- Funding specialist equipment
- Providing patient literature
- Funding educational and training grants for medical staff

We are also taking the message of keeping healthy out to the community through our 'Healthy Heart' campaign, offering on the spot health checks to staff at businesses and organisations.

It is thanks to the generosity of many individuals and organisations that we are able to fund these projects past and present.

With an increasing number of patients being treated by the WCC, there are always more ways in which Wessex Heartbeat can help and ensure that the cardiac care these patients receive continues to get even better.

We look to develop prevention and rehabilitation across the community.

For more information on our work please visit our website at www.heartbeat.co.uk

With your help, however large or small, we can continue to make a difference and change the lives of the people in our community.

Thank You

Registered Charity No 1116510
Company Limited by Guarantee No 5924982

Please help Wessex Heartbeat make a difference

Mr/Mrs/Ms First name Surname

Address

..... Postcode

Telephone Email

I would like to receive more information on:

Events / Projects / Healthy Heart Campaign

How to make a donation

1 By Cheque

I enclose a cheque for £..... made payable to Wessex Cardiac Trust. Please send cheques to the address at the bottom of this form.

2 By Credit or Debit Card

Donations can be made via our website: www.heartbeat.co.uk or call the Fundraising Team on **023 8070 6095**. We regret that we cannot accept American Express or Diners Club cards.

3 Direct Debit Mandate

We are very grateful for any amount you are able to give. Please complete the Direct Debit section below.



I / we wish to pay Wessex Heartbeat the amount of £..... monthly / quarterly / annually, until further notice.

Instructions to your Bank or Building Society to pay by Direct Debit

Bank name.....

Bank address

Account name(s).....

Account number..... Branch sort code

Starting on..... Signature..... Date

By completing your details below, we can reclaim an extra 25p for each pound you donate.



I am a United Kingdom taxpayer and want this donation and all future donations to be treated as Gift Aid until I notify you otherwise.

Signature Date

Please send this form to:

Wessex Heartbeat, Heartbeat House, 152-154 Tremona Road, Southampton, SO16 6HW

T **023 8070 6095**

E info@heartbeat.org.uk



All data is protected under the Data Protection Act and not shared with any other organisation. Wessex Heartbeat would like to keep you updated with our work. If you do not wish to receive information from us please tick the box

University Hospital Southampton NHS Foundation Trust
Southampton General Hospital
Tremona Road
Southampton
Hampshire
SO16 6YD

Telephone: **023 8077 7222**

Advice line

If you have any questions or require advice after leaving hospital, you can telephone the cardiac rehabilitation team on: **023 8120 6673** (Monday to Saturday). If you reach the answerphone, leave your name and telephone number and we will call you back as soon as possible.

Please note, this number is not for medical emergencies.

For a translation of this document, or a version in another format such as easy read, large print, Braille or audio, please telephone **0800 484 0135** or email **patientsupporthub@uhs.nhs.uk**

For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit **www.uhs.nhs.uk/additionalsupport**

www.uhs.nhs.uk

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