



Radiotherapy to the bowel, rectum and anus



You and your clinical oncologist have decided that a course of radiotherapy would be the appropriate way of treating your cancer.

When recommending radiotherapy, your doctor will have taken into account the risks and benefits of the treatment. Although there will be side effects, it is felt that the advantages for you would outweigh the disadvantages.

Your doctor will discuss the risks and benefits of having a course of radiotherapy and you will need to sign a consent form agreeing to have treatment. You will also be asked to confirm this consent verbally on the day of your planning scan.

The risks of receiving radiotherapy to the bowel, anus or rectum are outlined in this leaflet.

You may decide that you do not want to have radiotherapy – this is an option for you to consider. In this instance, you might want to talk again with your doctor and let them know what you have decided.

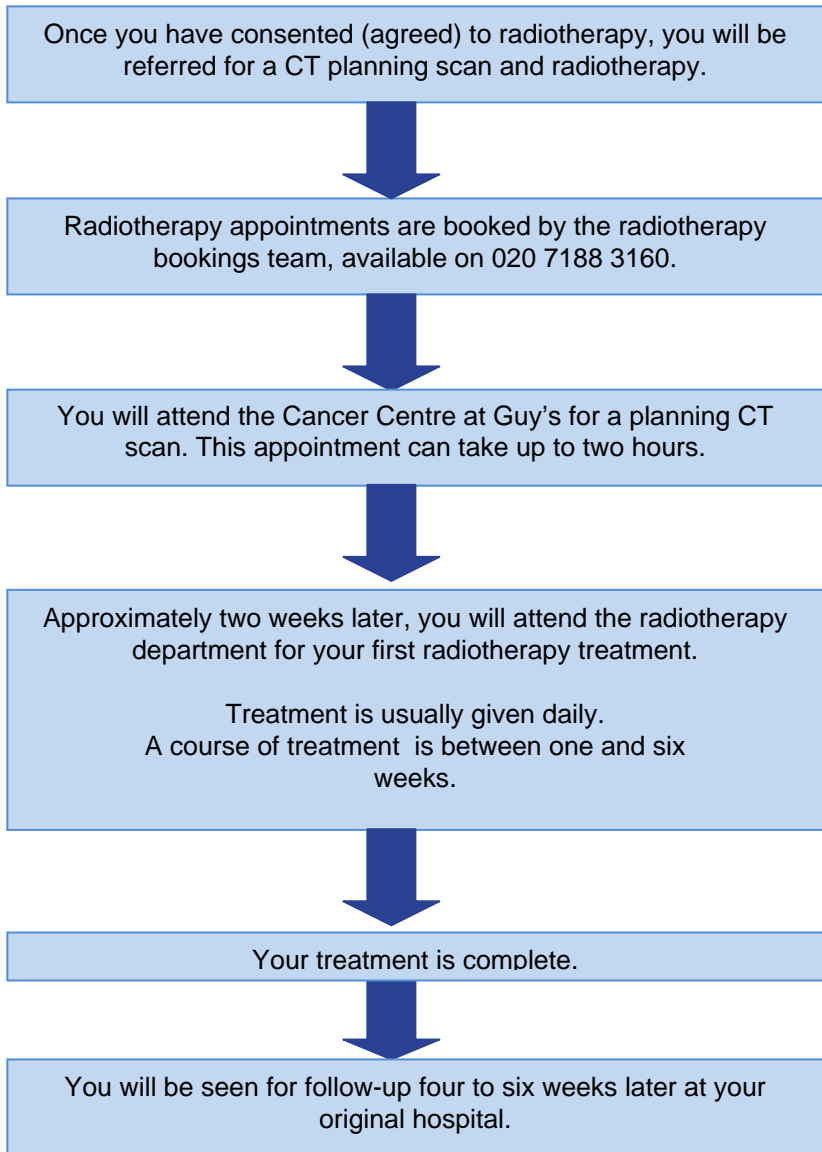
You can request a second opinion on your diagnosis or treatment at any time during your consultation or treatment process. Please speak to your clinical oncologist or GP for information on how to do this.

Your key worker:

Contact number:.....

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Patient pathway



What is radiotherapy?

Radiotherapy uses radiation (high energy x-rays) to treat cancer. The radiation only damages the cells within the treatment area, killing the cancer cells but allowing normal healthy cells to recover. Any side effects of radiotherapy are usually isolated to the area being treated.

Treatment is given over a prescribed number of days/weeks so that only small doses (fractions) of radiation are given. Your clinical oncologist will prescribe the amount of radiation needed and will tell you how many treatments you will have and over how many weeks. Treatment is given on weekdays (Monday to Friday) with a break at the weekend.

It is important that you attend all of your treatment appointments.

Before radiotherapy starts

Pacemakers

If you have a pacemaker, please tell your doctor as soon as possible. You will need to have a pacemaker check before your radiotherapy treatment.

Pregnancy

All female patients under the age of 60 will be asked to confirm their pregnancy status before the first planning session starts. **It is very important that you are not and do not become pregnant while undergoing radiotherapy planning and treatment.**

If you think you may be pregnant at any time during your course of treatment, please tell your clinical oncologist or radiographer immediately. If necessary, please speak to your GP about contraception methods suitable for use during radiotherapy.

Drinking fluids and radiotherapy

It is important that you start drinking plenty of fluids now and continue throughout your course of radiotherapy.

Drinking at least eight cups (two litres) of fluid (not including alcohol, caffeinated or fizzy drinks) every day will help to reduce the side effects of the treatment.

You may have your bladder scanned at your radiotherapy planning appointment to check your fluid levels and that you are drinking enough.

You may be asked to drink a specific amount of water each day before your radiotherapy – you will be given further instructions when you attend for your radiotherapy CT planning appointment.

What are the side effects of radiotherapy?

Receiving radiotherapy does have side effects. The most common side effects are listed below and are grouped into short-term and long-term effects. Your clinical oncologist will have discussed these effects with you as part of your consent to treatment. You can ask someone in your treatment team at any point if you would like clarification of these side effects.

Whilst we cannot prevent against side effects, we can help you to manage them. Side effects that occur during your radiotherapy are called early (or acute) side effects. They usually begin to occur one to two weeks after your treatment starts. As your treatment progresses, these become more severe and are usually at their worst one to two weeks after your radiotherapy treatment finishes. Then, they gradually start to improve and by three months after the completion of your treatment, most will have resolved or at least improved considerably. Early side effects affect all patients, but the severity varies.

There are also side effects that occur months to years after the treatment has finished – these are called long-term side effects and are consequences of the radiation treatment. You may or may not experience long-term side effects – not everybody does. They may start during treatment and then gradually become worse, or they may develop slowly over a long period of time. Some may improve slowly but others may be permanent.

We use the most modern radiotherapy techniques available to reduce the side effects to a minimum. However, some of the side effects described below are unavoidable.

We will support you and help you to manage these side effects, with advice and medications when necessary. Additionally, you will be reviewed by the treatment support radiographers to assess your reactions to treatment.

Possible early side effects:

- **Skin reaction:** Skin in the treatment area may develop a reaction to the radiation. The skin may become dry, red and itchy. This may cause the skin to begin to blister and the area to become moist. If this does occur, the skin will fully heal after treatment has finished.
- **Diarrhoea:** Stools may become very loose. If this becomes a problem, medication can be taken to control it.
- **Colic:** Windy stomach cramps may occur during treatment.
- **Urinary frequency:** You may get the urge to pass urine more frequently.
- **Mucous discharge:** It is common to have a thick mucous discharge from your back passage during and for several weeks after radiotherapy. The discharge may be colour, light brown or blood stained. This is a normal side effect, but please tell the doctors or radiographers during your treatment review if you are experiencing this symptom.
- **Tiredness:** A sense of fatigue and lack of energy may occur during radiotherapy, but will slowly settle once treatment is completed.

Possible late side effects:

- **Intestinal hurry:** You may experience increased frequency of the bowel, meaning that you need to go to the toilet more often.
- **Fertility/potency:** The radiotherapy may affect your fertility and sexual function. You should not try to conceive a child for at least six months after your treatment, and should use appropriate contraception.
- **Vaginal dryness:** Radiotherapy can cause vaginal dryness, which can interfere with sexual intercourse.
- **Small bowel stricture:** Very rarely, radiotherapy can cause narrowing or a perforation in the upper part of the bowel. If you experience problems with your bowels after your radiotherapy, please consult a doctor.
- **Late malignancy:** There is an extremely small chance of developing another cancer within the treatment area 10 years or more after treatment.

Late side effects are uncommon – your doctor will discuss them with you in detail.

Who will look after me during my treatment?

A number of healthcare professionals will be involved in your treatment and care. Below is a list of all of the doctors, nurses, specialists and departments who will look after you while you are having radiotherapy.

Clinical oncologists are doctors who are trained in the use of radiotherapy and chemotherapy. The consultant clinical oncologist will be in charge of your care. Clinical oncologists are supported by a team of specialist registrars, therapy radiographers, nurses and administrative staff.

Therapy radiographers are specifically trained to plan and deliver the radiotherapy. They provide support and advice on radiotherapy side effects and their management. The radiographers will have day-to-day responsibility for you while you are receiving radiotherapy.

Your **advanced practitioner radiographer** will provide support and advice on all aspects of your treatment.

Oncology nurses provide support and advice on the side effects of radiotherapy and chemotherapy and their management. **Chemotherapy nurses** will be involved in delivering chemotherapy treatment if necessary.

The **acute oncology assessment unit** will provide emergency medical care for any side effects of treatment or problems relating to the cancer itself. This service is available between 9am and 6pm, Monday to Friday. Emergency contact details will be provided for out of hours problems. Their telephone number is **020 7188 3754**.

Radiotherapy planning

Following your initial outpatient appointment with the doctor, you will be sent a letter asking you to attend the radiotherapy department at the Cancer Centre at Guy's. This appointment is for you to have a **CT scan**.

Please bring your appointment letter with you.–

A member of the pre-treatment radiotherapy team will check that you have understood the information you received and you will have an opportunity to ask any questions you might have. During this discussion, you will be asked to confirm your name, address and date of birth. **You will be asked for this information before every procedure/treatment undertaken in the department.**

We will also ask you to **re-confirm consent** to make sure you are certain that you would like to go ahead with the proposed treatment.

Your computerised tomography (CT) scan

A CT (computerised tomography) scanner is a special x-ray machine that produces a series of detailed images of the inside of your body.

This scan is for planning your treatment only. The images are sent to a planning computer and used to reconstruct a three dimensional image of your pelvis. The clinical oncologist will then use this image to accurately plan your radiotherapy.

You may eat and drink normally on the day of your scan and throughout your treatment appointments, and there is no harm in you being around other people.

For the scan, we will ask you to lie on the couch and the radiographers will move you to the position that you will be in for your radiotherapy treatment. It is important that you are comfortable and are able to lie still in this position. Please tell the radiographers if you do not think this will be possible.

The couch will move slowly through the open scanner. You will not feel anything and nothing will touch you. You will be asked to breathe normally and to keep as still as possible.

It may be necessary to have a **contrast injection** to provide clearer CT images – more information about this is given below.

What is a contrast injection?

Contrast agent is a type of dye that helps us get a better understanding of the internal structures of your body. A liquid dye called Omnipaque® will be injected into a vein in your arm. This allows us to see your blood vessels during the CT scan and will provide clearer pictures for your doctor to plan your radiotherapy treatment. Your doctor will discuss this with you and may send you to have a blood test before your planning appointment.

Using contrast does not usually cause any problems for patients. However, some people can experience side effects.

The most common side effects are a general sensation of warmth in your body and/or a metallic taste in your mouth during the contrast injection. Other possible side effects include nausea, vomiting, headache, high/low blood pressure or diarrhoea. If you have any questions or would like further information on the side effects of the contrast, please ask us before your scan.

Allergic reactions to contrast dye have been reported but occur rarely. **It is very important that you complete the questionnaire provided at the CT scan and detail any allergies you have.**

Please tell the radiographer immediately if you experience any other symptoms following the injection, especially if you have breathing difficulty and/or a rash.

If you have diabetes and currently take **metformin**, please let the radiographers know and follow the advice given by your doctor and radiographers.

What are the alternatives?

It is sometimes not possible to use the contrast injection for medical reasons, or if access to your veins is not successful. In this situation, the CT scan will be performed without contrast.

How long will I be in hospital?

You may be in the department for up to two hours. Please bring any snacks you feel might need with you, particularly if you have diabetes.

Your appointment will be broken down into the following sections:

| Activity | Time |
|---|----------------|
| Explanation | 30 minutes |
| Preparation for scan and contrast injection | 15–45 minutes |
| Scan | 30 minutes |
| Wait | 15 minutes |
| Total | 2 hours |

When the injection and scan are complete, you will need to remain in the hospital for a further 15 minutes. If you feel unwell or develop any symptoms, you must report to a member of staff and inform them that you have had a contrast injection.

During the CT scan

For the scan you will need to remove all your clothing from the waist down. We will provide a gown, but you will need to remove this for the scan and all treatments.



CT scanner

Image supplied courtesy of Siemens.

You will need to lie face down on the CT table, with your hands above your head. Your legs will be straight with a support under your ankles. The radiographers will make you as comfortable as possible so that you are able to lie very still.

A radiographer will make some pen marks on your skin, to mark the area that needs to be scanned. They will place a metal marker at the opening of your back passage (anus). This marker will show up on your scan and help to plan the treatment. The marker will be removed after the scan is completed.

The CT table will be raised to go through the scanner and the radiographers will then leave the room.

They will be watching you at all times through a one way mirror. The radiographers will start the scan from outside the room. You will feel the bed slowly move in and out of the scanner and hear the machine buzzing. The scan should only take a few minutes.

After the CT scan

Once the scan is completed, the radiographers will come back into the room. The radiographers will take some measurements and make some very small permanent ink marks (tattoos) on your lower back and on each of your buttocks. These marks help to position you correctly for your future treatments.

The radiographers will help you down from the scanning table and you may then get dressed and leave the department.

Before you leave, you will be given a provisional list of all your radiotherapy appointments – **please bring this list with you to your first treatment appointment**. You will be given a confirmed list of appointments on your first day of radiotherapy treatment, approximately two weeks after your CT scan.

What if I have any problems after I have gone home?

If you feel unwell or develop any symptoms once you have left the hospital (including signs of an allergic reaction, such as wheeziness, difficulty breathing, tightness in your chest, skin rash, lumps, itchy spots, swelling of your face, dizziness or feeling faint), you must contact your GP or local A&E department.

Contact us

If you have any questions or concerns about your CT scan with contrast, please contact the radiotherapy pre-treatment area on **020 7188 3160** between 9am and 5pm, Monday to Friday.

What is a radiotherapy plan?

Your radiotherapy plan is the personalised design of your radiotherapy treatment. It is tailor-made for you and is based on the CT scan that you had. A team of doctors, radiographers and physicists will work together to decide where the treatment needs to be directed, avoiding as much healthy tissue as possible.

What will happen on my first day of treatment?

When you arrive for your appointment, please book in at reception and you will then be directed to the treatment waiting area. One of the treatment radiographers will discuss your treatment with you and you will be able to ask any questions that you may have.

Please bring a dressing gown to wear at your treatment appointments. You will be asked to change in a cubicle, and then taken into the treatment room where the staff will introduce themselves.

You will be asked to lie on the treatment table, which will be set up with the same equipment as when you had your CT scan. You should relax, stay still and breathe normally.

Radiotherapy treatment is given by a machine called a linear accelerator, often referred to as a linac.



Linear accelerator (linac)

Image supplied courtesy of Varian.

The lights will be dimmed so that the radiographers can see the room lasers that will help them to position you correctly. You will hear the machine move around you. It will come close to you but will not touch you. You will hear radiographers taking various measurements and you will feel the bed moving. Once you are in the right position, the radiographers will leave the room.

Once the radiographers have left the room you will hear a buzzing sound. This is the door safety interlock. You will be alone in the room during your treatment but the

radiographers will be watching you all the time on closed circuit television (CCTV).

If you need assistance at any point, just wave a hand and the radiographers can immediately return to the room.

Digital x-ray images are taken regularly during your treatment to ensure that the treatment is being delivered accurately. There will be a short delay whilst these images are assessed and you may feel the bed move as the radiographers adjust its position from outside of the room. Treatment will then be delivered and the machine will move around you to treat you from different angles.

This whole process will take approximately 20 minutes. Afterwards, the radiographers will return to the room, and help you down from the treatment table. The treatment table will be quite high up, so it is very important that you do not move or attempt to get off the table without assistance. The radiographers will tell you when it is safe to sit up and get off the table.

Treatment review

You will be seen by a member of the treatment support team weekly. These radiographers will support you during your treatment and help you to manage your side effects. You will have separate appointments for this on your appointment list.

Managing the side effects of radiotherapy

Itchy inflamed skin

Radiotherapy commonly causes inflammation, redness and itching.

This usually occurs one to two weeks after treatment begins and can affect the entire treatment area. To reduce the likelihood of this reaction, we suggest the following:

Washing – It is important to keep the treatment area clean. Shower/bath using lukewarm water and use your usual soap or shower gel. Aqueous cream may be used as a soap substitute but not as a leave on moisturiser. Use a soft towel to gently pat the skin dry – do not rub.

Moisturising – Moisturising in the treatment area will help your skin to cope better. You may continue to use your usual moisturiser or if you need to buy one, we recommend one without the additive, sodium lauryl sulphate (SLS). During treatment, apply the moisturiser sparingly twice a day or more often if your skin is very itchy

Do not use the moisturiser or hydrocortisone on broken skin. Check your skin daily before applying creams. Dressings will be given for broken skin.

Shaving – do not wet shave in the treatment area. If really necessary, a dry electric razor can be used. Do not use any hair removal creams or wax in the treatment area or near to it.

Clothing – wear loose, comfortable clothing and cotton underwear.

Swimming – Reduce the number of times you swim in chlorinated water as this can have a drying effect on the skin.

After swimming, shower to remove excess chlorine and discontinue swimming if the skin becomes sore.

Sun – the skin in the treatment area will be more sensitive during radiotherapy and should not be exposed to the sun. You should protect the skin in this area for at least 12 months after treatment using a high factor sun block.

Comfort – do not use a hot water bottle on your pelvis during your course of treatment, as this will aggravate your skin.

Changes in bowel habit

Radiotherapy may cause diarrhoea. If you normally need regular laxatives, you may need to reduce or stop these. If the motions become too loose or too frequent, it may help to reduce the fibre in your diet. This includes high fibre breakfast cereals (such as bran flakes), brown bread, orange juice, vegetables and fruit. You may also need medication to control diarrhoea. Try to drink plenty of fluids – at least six to eight glasses of non-alcoholic, non-caffeinated fluid each day.

Looseness of bowels may continue for a few weeks after the end of your treatment, so you may need to continue with your medication until this improves.

Urinary frequency

You may find that you feel an urgent need to pass urine more frequently during your course of treatment. If this is the case, try to increase your fluid intake.

If this continues, or if you start to get a burning feeling when you pass urine, staff will arrange for you to have a urine test. If the test reveals that you have a urine infection, your doctor may prescribe a course of antibiotics.

Tiredness

You may feel tired during treatment. The best way to cope is to rest, eat regularly and do a small amount of light exercise (such as walking). Ask your friends and family to help you with daily activities.

How do I get further supplies of my medicines?

After being prescribed medicines at the hospital, take the white copy of your prescription to your GP, who can continue to prescribe these for you.

Anyone with a cancer diagnosis is entitled to free prescriptions. If you do not already have a medical exemption card, you can get an application form from your GP, the oncology outpatient department, or from the Dimbleby Cancer Centre. Please ask us if you need any further information.

What happens when treatment ends?

Last week of radiotherapy

In the last week of treatment, you will see a treatment support radiographer to review your side effects and discuss how to manage them.

The side effects are likely to worsen during the first two weeks after treatment and then they will start to improve.

On the last day of treatment, you will be given a Treatment Completion Form summarising your treatment. We will send one copy to your GP and give you one for your own records.

Follow-up after treatment

Two to four weeks after your treatment has ended, your oncologist will want to see you in the clinic where you were originally seen. This appointment is to check that you are recovering well. You will be given the telephone number and information to make your follow-up appointment on your first day of radiotherapy treatment.

In the long term, you will be followed up by your oncologist and referring surgeon. This is to assess both your recovery and your response to treatment. Further appointments with your oncologist will be at six months, one year and then yearly thereafter for five years. In addition, you will have follow-up appointments with the referring surgical team.

Commonly asked questions

Where can I get advice on financial support during treatment?

Dimbleby Cancer Care offers a benefits advice service at Guy's and St. Thomas'. To book an appointment, please telephone **020 7188 5918**.

When can I go on holiday?

As long as your skin is protected from sun exposure, you can go on holiday as soon as you feel well enough. You may swim as soon as your skin reaction has healed.

When can I go back to work?

Some patients continue to work throughout their radiotherapy treatment, while others may feel they need a few weeks break before returning, especially if they have had chemotherapy as well.

If you have had a long break from work, it may be advisable to plan a phased return, where you work shorter hours initially.

Additional information

In order to improve treatments and services, audits are regularly carried out in the department. This can involve using patient notes. Any data collected will have all personal and identifiable details removed to ensure patient confidentiality. However, if this is unacceptable to you, and you would prefer that your notes are not seen, please let your consultants know and your wishes will be respected.

Clinical trials are undertaken within the department, which you may be eligible to take part in. If necessary and appropriate, your doctor will discuss this with you.

Contact us

| | |
|---|---------------------------------------|
| Radiotherapy reception | 020 7188 7188 (ext 57542 or 57569) |
| Radiotherapy bookings | 020 7188 3160 |
| Radiotherapy treatment support team (8.30am to 5.30pm, Monday to Friday) | 020 7188 4220 |
| Acute oncology assessment unit (9am to 6pm Monday to Friday) | 020 7188 3754 |
| <p>Out of hours oncology doctor on call Outside of working hours, please phone the hospital on 020 7188 7188 and ask them to contact the oncology doctor on call. Please have your hospital number ready. The switchboard operator will take your details and ask the emergency oncology doctor to phone you back.</p> <p>If you are concerned go to your local emergency (A&E) department.</p> | |

Further information

Macmillan Cancer Support

If you have any questions about cancer, need support, or just want to chat, call the Macmillan Support Line free.

t: 0808 808 0000 (9am to 8pm, Monday to Friday)

w: www.macmillan.org.uk

Colostomy Association

t: 0800 587 6744

w: www.colostomyassociation.org.uk

Cancer Research UK

t: 0808 800 4040 **w:** www.cancerhelp.org.uk

Bowel Cancer UK

t: 08708 50 60 50 **w:** www.bowelcanceruk.org.uk

Ileostomy and Internal Pouch Support Group

t: 0800 0184 724 **w:** www.the-ia.org.uk

Macmillan Cancer Support (freephone)

t: 0808 808 0000 (information on all aspects of cancer)

w: www.macmillan.org.uk

Guy's and St Thomas' hospitals offer a range of cancer-related information leaflets for patients and carers, available at www.guysandstthomas.nhs.uk/cancer-leaflets. For information leaflets on other conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets



Dimbleby Cancer Care provides cancer support services for Guy's and St Thomas'. We have a drop-in information area staffed by specialist nurses and offer complementary therapies, psychological support and benefits advice for patients and carers.

Dimbleby Cancer Care is located in the Welcome Village of the Cancer Centre at Guy's. **t:** 020 7188 5918
e: DimblebyCancerCare@gstt.nhs.uk

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and Accessible Support Services

If you need an interpreter or information about your care in a different language or format, please get in touch:

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk

Get involved: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved.

t: 0800 731 0319 **e:** members@gstt.nhs.uk **w:** www.guysandstthomas.nhs.uk/membership

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