



Radiation Treatment Haumanu Iraruke

- | | |
|----|---|
| 04 | What is radiation treatment? |
| 04 | Types of radiation treatment |
| 05 | Why is radiation used to treat cancer? |
| 05 | How does radiation treatment work? |
| 08 | The treatment team |
| 08 | Your experience of radiation treatment |
| 09 | Planning your treatment |
| 13 | Dosimetry |
| 13 | How long is a course of treatment? |
| 14 | Having treatment |
| 15 | Will I be radioactive? |
| 20 | Skin cancer treatment |
| 20 | Internal radiation – brachytherapy |
| 23 | Radioisotopes |
| 24 | Radioisotope treatment for secondary cancer in the bone |
| 25 | Relationships and sexuality |
| 27 | Fertility and contraception |
| 28 | Support |
| 29 | Talking with children |
| 30 | Cancer Society support services |
| 32 | What can I do to help myself? |
| 34 | Questions you may wish to ask |
| 35 | Advice from people who have had radiation treatment |
| 36 | Suggested websites |
| 36 | Notes |
| 39 | Feedback |



Quick Links	
Advanced Cancer	
04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



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Publications Statement

The Cancer Society’s aim is to provide easy-to-understand and accurate information on cancer, its treatments, and the support available.

Our cancer information booklets are reviewed every four years by cancer doctors, specialist nurses, and other relevant health professionals to ensure the medical information is reliable, evidence-based, and up-to-date. The booklets are also reviewed by consumers to ensure they meet the needs of people with cancer.

This edition of *Radiation Treatment/Haumanu Iraruke: A guide for people having radiation treatment* includes new features in response to suggestions from those who review our booklets, and to meet the needs of our readers. Our key messages and important sections have been translated into te Reo Māori. Our translations have been provided by Hohepa MacDougall of Wharetuna Māori Consultancy Services, and have been peer reviewed by his colleagues. We thank the people whose personal quotes are included in this booklet are from interviews with people who have been diagnosed with cancer.

Other titles from the Cancer Society of New Zealand/Te Kāhui Matepukupuku o Aotearoa

Booklets

Advanced Cancer/Matepukupuku Maukaha
Bowel Cancer/Mate Whēkau Pukupuku
Breast Cancer/Te Matepukupuku o ngā Ū
Chemotherapy/Hahau
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Sexuality and Cancer/Hōkakatanga me te Matepukupuku
Understanding Grief/Te Mate Pāmamae
What Do I Tell the Children?/He Aha He Kōrero Maku Ki Āku Tamariki?

Brochures

Being Active When You Have Cancer
Questions You May Wish to Ask
Talking to a Friend With Cancer
When someone has Cancer
When You Have Cancer



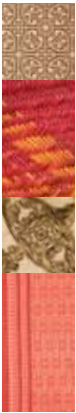
Radiation Treatment Haumanu Iraruke

This booklet has been written to support you during radiation treatment (sometimes called radiotherapy or radiation therapy). Throughout this booklet we use the term radiation treatment. It provides information about treatment, practical support and the emotional impact of cancer.

We can’t tell you what is the best treatment for you. You need to discuss this with your own doctors and family; however, we hope this information will answer some of your questions and help you think about the questions you might want to ask your doctors.

If you find this booklet helpful, you might like to pass it on to your family and friends.

For those who might want more in-depth information on radiation treatment we have included ‘The science of radiation treatment’ sections throughout this booklet. These sections are marked by the radiation symbol. ☸



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback

Contents

What is radiation treatment?	2	Palliative care services	56
Types of radiation treatment	3	Financial assistance	57
Why is radiation used to treat cancer?	4	Interpreting services	57
How does radiation treatment work?	5	What can I do to help myself?	58
The treatment team	10	Questions you may wish to ask	62
Your experience of radiation treatment	11	Advice from people who have had radiation treatment	64
Planning your treatment	13	Suggested websites	66
Dosimetry	20	Notes	67
How long is a course of treatment?	21	Feedback	73
Having treatment	22		
Will I be radioactive?	24		
Side effects	26		
Skin cancer treatment	34		
Internal radiation – brachytherapy	35		
Brachytherapy for gynaecological cancer	37		
Brachytherapy for prostate cancer	39		
Radioisotopes	41		
Radioisotope treatment for secondary cancer in the bone	42		
Talking with doctors	42		
Talking with others	43		
Making decisions about treatment	43		
A second opinion	44		
Taking part in a clinical trial	44		
Relationships and sexuality	45		
Fertility and contraception	49		
Support	50		
Talking with children	53		
Cancer Society support services	54		
Cancer Society accommodation	55		
Cancer support groups	56		
Home care	56		

04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



What is radiation treatment?

Radiation treatment is the use of high-energy radiation to destroy cancer cells or prevent them from reproducing.

Radiation treatment only affects the part of the body at which the beam(s) is aimed, so is very localised.

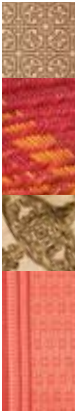
About half of all people with cancer need radiation treatment at some point in their illness. For some types of cancer this is the main treatment. It might also be used in combination with surgery, chemotherapy or hormone therapy.

Types of radiation treatment

Radiation treatment can be given in two ways: from outside the body or inside the body.

External beam radiation treatment is the most common method. This is where a radiation beam is focused from a machine outside the body onto the area affected by the cancer.

With internal radiation treatment (brachytherapy), radioactive material is put into your body, on or near the cancer. In some cases, a combination of both forms of radiation treatment is used.



Ngā momo haumanu iraruke

E rua ngā momo huarahi hoatu ai i te haumanu iraruke: Mā waho, mā roto rānei i te tinana. Ko te Iraruke hihi ā-waho te tukanga kaha ake te whakamahi. Whakahāngaitia ai te hihi iraruke mai i tētahi pūrere kei waho o te tinana, kia hāngai ki te wāhanga mate o te tinana. Ko te haumanu iraruke ā-roto, (brachytherapy), he rongoā iraruke ka purua ki roto i tō tinana, i runga i te matepukupuku, i te taha rānei. I ētahi wā, whakamahia ai ngā huarahi e rua.

04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Why is radiation used to treat cancer?

- To cure cancers, often in addition to other cancer treatment.
- To shrink a tumour so that surgery is more effective (neoadjuvant radiation treatment).
- To treat any cancer cells remaining after surgery (adjuvant radiation treatment).
- To control cancers – to keep cancer at bay for a long time.
- To relieve symptoms; for example, to reduce pain or a cough. This is called palliative treatment.

He aha te take whakamahia ai te iraruke hei maimoa i te matepukupuku.

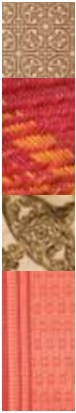
- Hei whakaora i ngā matepukupuku, Hei tāpiringa ki ētahi atu maimoa.
- Hei tingongo i te pukupuku kia pai ake te whai kiko o te mahi hāparapara (neo adjuvant haumanu iraruke).
- Hei patu i ngā pūtau e toe tonu ana whai muri i te hāparapara (adjuvant haumanu iraruke).

- Hei whakamau i ngā matepukupuku – te ārai i te matepukupuku mō te wā roa.
- Hei whakaiti ake i ngā tohumate, pērā ki te whakaiti i te mamae, i te maremare rānei. Kīia ai tēnei ko te maimoa taurima.

How does radiation treatment work?

Radiation treatment attacks cancer cells that are dividing. It also affects dividing cells of normal tissue. The damage to normal cells is what causes side effects. For each patient receiving radiation a decision has to be made about how much treatment to give while limiting damage to normal tissue. Different tissues have different tolerance levels to radiation.

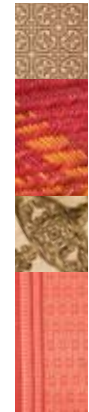
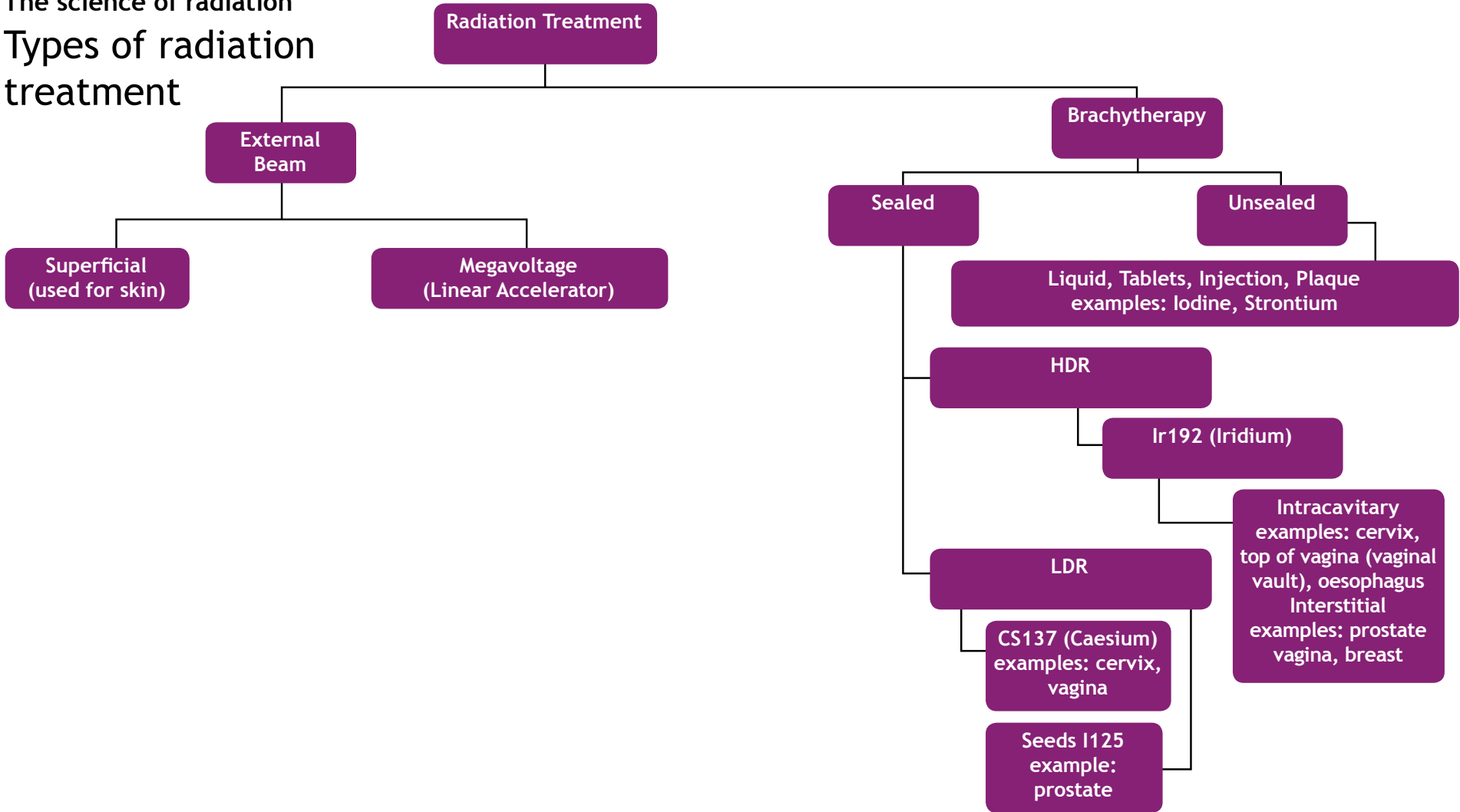
- ### Pēhea mahi ai te iraruke haumanu?
- Patu ai te Haumanu iraruke i ngā pūtau matepukupuku e whakawehe ana. Patu ai hoki te hihi i ngā pūtau pai e whakawehe ana. Koinei te take puta ai ngā māuiui i te taha. Ko te mea kē, ka hoatuna ana te haumanu iraruke, e mōhiotia ana ka mate ko ngā pūtau pai hoki.



- 04 What is radiation treatment?
- 04 Types of radiation treatment
- 05 Why is radiation used to treat cancer?
- 05 How does radiation treatment work?
- 08 The treatment team
- 08 Your experience of radiation treatment
- 09 Planning your treatment
- 13 Dosimetry
- 13 How long is a course of treatment?
- 14 Having treatment
- 15 Will I be radioactive?
- 20 Skin cancer treatment
- 20 Internal radiation – brachytherapy
- 23 Radioisotopes
- 24 Radioisotope treatment for secondary cancer in the bone
- 25 Relationships and sexuality
- 27 Fertility and contraception
- 28 Support
- 29 Talking with children
- 30 Cancer Society support services
- 32 What can I do to help myself?
- 34 Questions you may wish to ask
- 35 Advice from people who have had radiation treatment
- 36 Suggested websites
- 36 Notes
- 39 Feedback



The science of radiation Types of radiation treatment



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



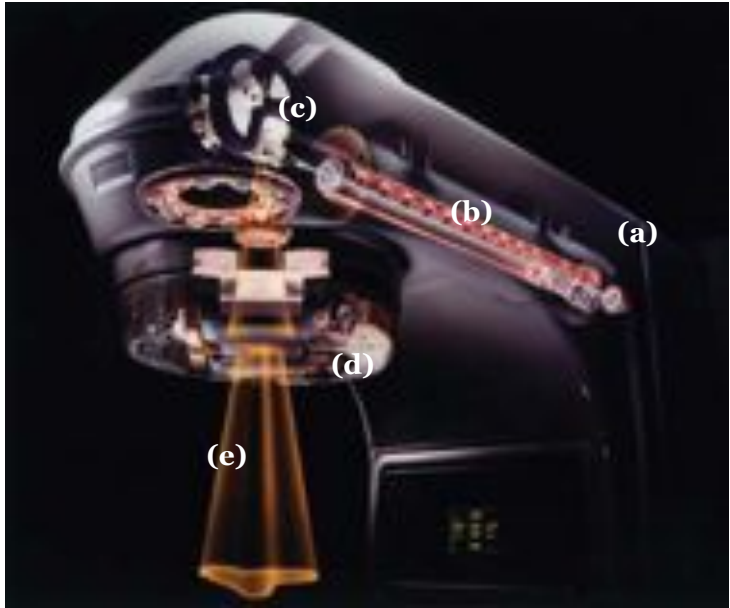
The science of radiation treatment

Linear Accelerator – An electron gun fires a tiny charged particle (an electron) that travels through a vacuum with an alternating magnetic field around it so the particle gets accelerated to high speed. The speeding particle then hits a target within the machine and its energy is converted to a beam of radiation that comes out and interacts with anything in its path.

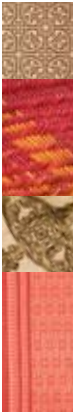
The higher the energy, the more deeply the radiation can penetrate (get into) the body. The way a certain type of radiation behaves is important in planning radiation treatments.

During radiation treatment you will be placed so the beam is directed to that part of your body that needs to be treated. The radiation beam passes through and is shaped by a device called a multileaf collimator so that it conforms to the shape of the tumour.

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(a) electron gun; (b) vacuum; (c) target;
(d) multileaf collimator; (e) beam



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



The treatment team

A team of health professionals will provide your treatment and care.

The team includes:

- radiation oncologist – a doctor who specialises in the use of radiation in the treatment of cancer. This doctor is responsible for your overall treatment. There will be other doctors working in a team with your specialist to care for you
- registrars and house surgeons – doctors are part of your medical team
- medical physicists – they are responsible for quality assurance of radiation equipment and software
- radiation therapists – therapists who plan and deliver your treatment and specialise in the care of patients receiving radiation treatment
- oncology nurses – nurses who specialise in the care of patients with cancer
- dietitians
- social workers.

Students might be present during your radiation treatment, always with your permission.

“I’m the type of person to ask questions, they [the team] were really kind. Not patronising ‘kind’. They were very patient explaining to me.” **Silei**

Your experience of radiation treatment

Your doctor has referred you to the radiation oncologist. You might need extra tests done. Why? This is to work out what treatment is best to treat your cancer. In some cases, a course of radiation treatment might be given to cure your cancer or prevent recurrence. If the aim is to improve your symptoms, the course of radiation might be shorter. The higher the dose, the greater likelihood of damaging the healthy parts of your body. Therefore, a lot of effort goes into protecting those areas.

External radiation

A course of radiation treatment is given over a number of days or weeks. Each treatment is known as a ‘fraction’. Fractions are usually given daily from Monday to Friday with a rest at the weekend to help normal cells recover.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Haumanu iraruke ā-waho

Ka hoatuna te maimoa haumanu iraruke mō he wā, e ai ki te momo matepukupuku, tērā pea e hia rā kē, e hia wiki kē rānei e whai ana i ngā maimoa. Kīia ai ia maimoatanga ka hoatuna, ko te ‘hautau’. Ka hoatuna te hautau kotahi te wā i ia rā, mai i te Rāhina ki te Rāmere, ā , ka whakatā i ngā rā o te mutunga wiki kia ora mai anō ngā pūtau pai. I te nuinga o te wā, ka whakarerekētia ngā pūtau whai hauora kua pā te haumanu iraruke, e te pūnaha whakatikatika o te tinana.

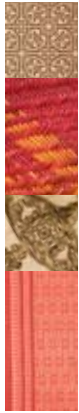
External radiation delivers a beam of radiation by a treatment machine called a linear accelerator. A superficial therapy machine is used for the treatment of skin cancer. The choice of treatment machine depends on the type of cancer and the affected part of your body. Some machines are better at treating cancers near the surface of the skin, while others are used to treat cancers deeper in the body. While you lie still, the machines are moved up and down and around you so that the radiation can be directed at the tumour from different angles and it is similar to having an X-ray taken. During this treatment you do not see or feel anything.

Planning your treatment

The process of planning external beam radiation treatment is complex and might take several weeks to complete. It is one of the most important parts of your radiation treatment. After your planning session, check with staff on how long it will be before your treatment starts. A treatment plan will be designed just for you. It will give the required dose of radiation to the cancer but will spare as much normal tissue as possible. This will help reduce the side effects.

If you are having treatment to your pelvis, you might be sent instructions on how to prepare your bladder and bowel for this treatment.

The first part of treatment planning is called simulation, sometimes referred to as a marking up session.



Quick Links	
Advanced Cancer	
04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Image Right: Special supports and pillows might be used to help you keep in the same position for each treatment. A CT scanner for simulation can be seen in the background.

Simulation and planning

Before you start a course of radiation you will require at least one visit to the cancer centre to work out the exact position you will lie in during your treatment. This is known as simulation. A simulator – a machine similar to a treatment machine or a CT scanner – is used for this.

During planning, the treatment team considers many factors, including:

- what type of radiation to use
- the size and shape of the radiation field
- patient position as well as machine positioning
- how much radiation is to be delivered for each treatment
- how many beams of radiation.

This is all done on computers using the information from simulation, a CT scan, and other tests you have had.

“It’s like an X-ray machine. No worries. You’ve got a comfortable room, music going, then it’s over.” **Milly**



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



This whole process of simulation can take 30-60 minutes and is a much longer process than each individual treatment.

It is important that you lie still in the same position when you have your treatment. You might have an ‘immobilisation device’ to help you keep still. This can range from special supports to a face mask made of plastic for people requiring treatment to the head and neck area.

“When they made the mask they were really good about talking to me and telling me what they were doing. They said that it would feel like a pressure, and how long it would take.”
Melinda

The machine is set to treat exactly what is to be treated with a ‘safety margin’. Once the position of the beam is worked out, your skin or the mask will be marked. This may require a tattoo which is a permanent marking, but occasionally can be removed later. It can be helpful to have a family member or friend with you during simulation and planning.

Image Right: Here a radiation therapist is showing the patient the plastic mask, which will help her stay in position. The positioning marks are drawn on the mask, not on the face.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Whaihanga me te māherehere

I te wā māherehere i te maimoatanga, he nui ngā āhuatanga hei whakaaro mā te kāhui maimoa, tae noa ki ēnei:

- he aha te momo iraruke me whakamahi
- te rahi, te āhua o te hōrapa o te iraruke
- ngā momo tūranga me ngā tūranga rerekē o te pūrere
- e hia te rahi o te iraruke ka tukua i ia maimoa
- e hia ngā hihi iraruke ka whakamahia, ko tēhia pūrere ka whakamahia.

Whakaritea ai ēnei mahi i runga i ngā rorohiko me te whakamahi i nga kōrero mai i te whaihanga, mai i te matawai roro, me ngā whakamātautau kua whakahaerehia mōu.

Mehemea e tika ana kia kaha ake te horopeta iraruke, ka hoatuna mō ngā rā e 4, mō ngā rā e 5 rānei, tae noa ki te paunga o te rima ki te whitu wiki. Mēnā he poto noa iho te mahi, pēra ki te whakaiti i te mamae, kati i te rere o te toto, whakaheke rānei i te pupuhi, tērā pea ka poto noa iho te maimoa.

He pūrere te whaihanga rite tonu ki nga pūrere maimoa.

E 30 meneti ki te 60 meneti te roa o te mahi whaihanga ā, he roa ake te mahi nei ki ia o ngā maimoatanga takitahi.

He mea nui kia takoto te tangata i ngā wā o te maimoa me te kore oreore haere. Tērā pea ka kuhunga tētahi ‘taputapu here’ hei āwhina kia kore koe e nekeneke haere. He nui ngā momo taputapu pērā ki ngā ‘kōpare’ i hangaia mai i te kirihou tākekenga mō ngā tāngata pāngia ana i te mate ki te upoko, ki te kaki rānei.

Whakaritea ai te pūrere kia hāngai te maimoa ki te wāhi tika me te whakarite i tētahi ‘paenga haumarū’. Ka oti ana te whakarite i te hihi, ka tohua te kiri mā te tā moko i te kiri. He roa te noho o te moko engari ka taea te tango ka mutu ana ngā maimoa.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback

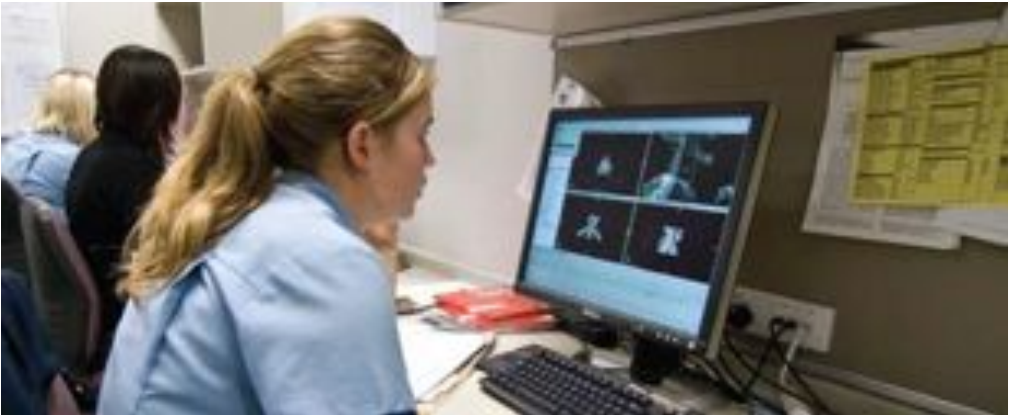


Image Above: Information from the planning CT scan and/or simulator is used to create an individual map of where the radiation is to be delivered.

Dosimetry

Dosimetry is the process where the doctor and the radiation therapist decide on the amount of radiation you need and the best ways to aim it at the cancer with the least effect on normal tissue. This is called a treatment plan. They base this on the size of the tumour, how sensitive the tumour is to radiation, and the ability



of the normal tissue in the area to tolerate the treatment.

Image Above: The radiation therapist will explain your treatment to you.

How long is a course of treatment?

External radiation is usually given in a number of treatments (or fractions). The number of treatments is not necessarily related to the seriousness of the cancer. It depends on several factors, including your general health and the site and type of cancer.

You might want to allow time before and after treatment each day, as delays in your appointment might occur.

04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



If a high dose of radiation is required it is generally given four or five days a week for five to seven weeks. If a quick response is required, such as to relieve a cough or pain, stop bleeding, or reduce swelling, a shorter course is more likely to be given.

Having treatment

When you arrive for treatment, you might be asked to change into a hospital gown or trousers. External radiation is usually given as an outpatient. If you are already in hospital, you will be taken to the radiation treatment department daily.

The total amount of time spent in the treatment room is usually 10-20 minutes.

The machine is on for only a few minutes, but you will be in the room for longer. This is to ensure you are in the right position. Frequently, for the first few seconds of the radiation treatment, staff might take an X-ray to record where the beam is going to make sure it matches your plan. You can breathe normally. There is nothing to feel, the staff leave the room, but you can attract their attention by calling them on the intercom as they watch you from several TV cameras. You might hear a slight buzzing noise.

Small amounts of scattered radiation are present during your treatment within the treatment room. While not harmful to you, they can be a risk to staff if they are exposed to that radiation on a daily basis. Once a week you will have a longer appointment when you will see your doctor who will check your progress.

Te whai maimoatanga

Ka tae atu ana koe mō ngā maimoatanga, tērā pea ka karangatia koe kia kuhunga he kākahu hōhipera, he tarau hōhipera rānei. Ko te tikanga, hoatuna ai te iraruke ā-waho ki ngā tangata puta ake ai hei tūroto ā-waho. Mehemea kei roto kē koe i tētahi hōhipera, ka haria koe i ia rā, ia rā, ki te wāhanga haumanu iraruke. I te nuinga o te wā, 10 ki te 20 meneti te roa.

Poto noa iho te wā e kā ana te pūrere engari ka noho koe i roto i te rūma āhua roa ake. Ko te tikanga o tēnei, ko te whakarite kei te tika tō tūranga, arā tō takoto tō noho rānei. I te nuinga o te wā, ka pau ngā hēkena tuatahi, i te mea kei te tango whakaahua kē nga kaimahi ki te titiro kei te hāngai te haere o te hihi ki te wāhi tika e ai ki tō mahere. Kāore e rerekē tō whakahā. Kāore koe e rongo i tētahi mea. Ka wehe atu ngā kaimahi i te rūma engari ka taea e koe te karanga i a rātou i te mea kei te mātakitaki rātou mā runga i ngā kāmera pouaka whakaata. Tērā pea, ka paku rongo koe i ētahi hoihoi rite ki te tamumu. Kotahi rā i te wiki, ka rōa ake tō noho ki te hōhipera, kia tirotirohia koe e tō rata ki te whakatau kei te pēhea te haere o ngā maimoatanga.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Image Above: Radiation therapists will position you for your radiation treatment – lie still and breathe normally.
(a), (b): Feet stocks and knee rests for both immobilisation and comfort.

Will I be radioactive?

This is a common question. External radiation treatment does not make you radioactive. It is safe to be with your children, family, and friends both throughout the treatment and after the treatment has been completed.



Image Above: The linear accelerator is positioned to deliver treatment to where it is needed. (c): There is a handle to hold as well as supports under the arms so you can just lie back and relax.

Ka noho ira rukeruke au?

Kāo. Kāore koe e noho ira rukeruke i ngā haumanu iraruke ā-waho. He haumarua noa iho te noho tata me āu tamariki, tō whānau me ō hoa i te wā e whai maimoa ana koe, tae noa ki te wā oti ai ngā maimoa.

04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Side effects

Side effects depend on the:

- amount of radiation given
- area of the body treated
- individual response
- type of radiation.

Side effects are commonly grouped into those that develop early on, during, or at the end of the treatment (the acute side effects), and those that develop many months and sometimes years later (chronic side effects).

The inflammation caused by the radiation beams passing through normal tissue results in the acute side effects. These side effects peak about a week after treatment has finished.

Most side effects will be greatly improved around six weeks after the treatment has finished. Your doctor will tell you what you are likely to experience.

“My oncologist said ‘You will not feel any effects in yourself until towards the last weeks of treatment’ and I didn’t know what that meant at that time. I felt very tearful, I nearly gave up and threw in the towel in the 2nd to last week.” Silei

Late effects appear many months or years later. The inflammation of the tissues will have settled. Sometimes the initial damage and this healing process might result in scarring and damage to these tissues, which will restrict their function.

Your treatment will have been planned specifically to minimise the likelihood of late complications and any significant risks that might exist will be discussed with you.

Feeling tired

Fatigue/tiredness can be a major side effect of radiation treatment. If you do get tired, try to take things easier.

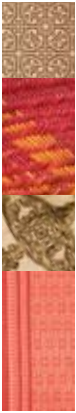
Only do as much as you feel comfortable doing. Try to plan rest times in your day. Drinking plenty of fluids, eating well, and having some form of mild physical activity will help you cope better with treatment.

If you’re not sleeping well, tell your treatment team. They might be able to suggest ways to help, or prescribe sleeping tablets or a mild relaxant.

Effects on the skin

The skin in the treatment area might become dry, flaky, red, itchy, or sore – similar to sunburn. It depends on the amount of radiation the skin receives.

Your skin might also be more sensitive than usual to the sun. Try to keep treated areas out of the sun during and after treatment. Once the reaction improves, ask your doctor about using a sunscreen (SPF 30+).



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Skin care

- Wear soft, loose clothing.
- Tell your treatment team about changes in your skin, such as cracks, blisters, very moist skin, rashes, infections, or peeling, or any changes in your nails.
- Don’t rub, scrub, or scratch treated skin or any sensitive spots.
- Follow skin care advice given by your treatment team; for example, avoid using soap, perfume, deodorant on treated areas; use a soft towel and bath or shower as usual in warm water.
- Do not put hot water bottles or ice packs on treated areas.
- If skin becomes sore, only use products recommended by the treatment team.

“My whole breast was sore – it was so uncomfortable but the nurses put on me this beautiful dressing. And I loved that dressing.” Silei

Hair loss

You only lose some or all of your hair from the part of your body being treated; e.g. scalp, chest, or face. This might be temporary or permanent.

If you have lost or are losing the hair from your head you could consider wearing a wig, hair piece, hat, or scarf for a while. If you decide to wear a hair piece or wig, it is a good idea to get one fitted before you start losing your hair, so that it matches as closely as possible your style and colour. The Ministry of health helps pay the cost of a hair piece, wig, or head covering. Ask your doctor for a certificate that states your entitlement.

Not wanting to eat

Your appetite might be normal during treatment, or you might not feel like eating. Your sense of taste might change, especially if you have radiation treatment to your head and neck.

Eat as well as possible during your treatment to keep your strength up and avoid weight loss. Try different foods until you find food that appeals. Eat smaller amounts more often, or try drinking special liquid supplement foods that you can get from your chemist. Even when you are unable to eat very much it is important to drink plenty of clear fluids.

You may find the Cancer Society’s booklet, *Eating Well/Kia Pai te Kai*, helpful. It has suggestions and recipes. For more information, contact the Cancer Information Helpline **0800 CANCER (226 237)**. You can also download this booklet from our website **www.cancernz.org.nz**

Your hospital might have its own diet information for cancer patients. You can also ask the hospital or community dietitian for advice about what to eat.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Feeling sick and vomiting

Feeling sick and vomiting might happen if you are having radiation to the oesophagus (gullet), stomach, bowel, brain, or pelvic area. Your radiation oncologist can prescribe medication to help relieve these symptoms. Maintaining a good fluid intake is important.

Bladder and bowel irritation

Bowel problems resulting from pelvic radiation treatment

During radiation treatment to the pelvic area, inflammation of the large bowel (colon and rectum) and anus occurs.

You might find that you have some of the following symptoms:

- loose stool or diarrhoea
- passing blood from the bowel
- needing to rush to the toilet, or leakage from the bowel
- feeling that the bowel has not emptied properly
- passing excess wind
- difficulty emptying the bowels
- bowel pain.

Once the radiation treatment has ended, the inflammation usually settles down over a few weeks or months. But there is some permanent scarring of the bowel.

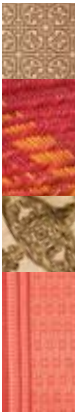
Bladder problems resulting from pelvic radiation treatment

High doses of radiation treatment for bladder or prostate cancer can cause bladder changes. Radiation to the cervix or uterus might also cause problems.

The cells lining the walls of the bladder can become permanently damaged. This can make them fragile, so they might bleed. The bladder walls might also become scarred and hardened (fibrosed). If this happens, the bladder holds less urine.

You might find that you have some of the following symptoms:

- need to pass urine often (frequency)
- burning sensation when you pass urine
- can't wait when you need to empty your bladder (urgency)
- blood in your urine (haematuria)
- weak flow of urine and your bladder not emptying completely
- getting up in the night to pass urine.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Less common symptoms:

- a small amount of urine leakage (incontinence) – especially if you laugh, sneeze, exercise, or cough
- pain when passing urine
- passing blood clots
- difficulty passing urine, because the radiation treatment can make the tube that drains urine from the bladder (urethra) narrower. This is known as a stricture.

Contact your doctor if any of these symptoms occur, because treatment is available to alleviate them.

If you have had surgery and radiation treatment to lymph nodes there is an increased risk of lymphodema.

Lymphodema is a long-term swelling of one or more parts of the body due to a drainage system that does not work properly. If this occurs for you, talk to your doctor or nurse about ways to manage this.

Mouth and throat problems

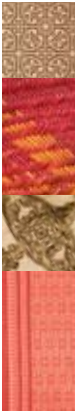
Radiation treatment can give you a sore or dry mouth or throat and your voice might become hoarse if you are receiving treatment to the head and neck region.

Try some of these ideas:

- suck on ice blocks
- drink lots of liquids – carry a sipper bottle with you at all times
- moisten foods with butter
- dunk dry biscuits in tea
- blend foods and eat soups and ice creams
- ask your dentist, doctor, or nurse about artificial saliva
- if you drink alcohol, do so in moderation and avoid spirits
- don’t smoke.

For more advice on living with a dry mouth, contact your local Cancer Society to receive our booklet *Got Water?/ He Wai?*, or phone the Cancer Information Helpline 0800 CANCER (226 237).

“I did get a few ulcers in the back there though spicy foods didn’t set it off. It was strawberries and berries that did it.”
Melinda



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



If you are having radiation treatment to your mouth, your teeth will be more likely to decay. Discuss dental care with your doctor and dentist before your treatment starts, so any dental work can be arranged before your radiation treatment begins.

I te wā o ngā maimoa, ka kitea koe ia wiki, ia rua wiki rānei e te mātai matepukupuku iraruke kia aroturukitia te kauneke o tō ora. Ka taea hoki e koe te kōrero ki tētahi o ngā kaihaumanu iraruke, ki tētahi tapuhi rānei mēnā he āwangawanga ōu.

Skin cancer treatment

Radiation treatment affects only a small area of skin and will not make you feel unwell. For a few weeks after treatment, the treated skin will be red and inflamed. During this time it will look as though the treatment has made things worse rather than better. Try not to be worried about this. After a few weeks the area will dry up and form a crust or scab. Over another week or so the scab will peel away leaving healed new skin underneath. It is important not to pick at the scab. At first, the new skin will look pinker than the skin around it.

Some patients’ skin will have a tan in the area where radiation was given. This will gradually fade, and the treated area will look like the skin around it, although it can eventually be slightly paler.

Source: Cancer Backup 2008

Internal radiation – brachytherapy

Internal radiation (also known as brachytherapy) involves placing radioactive seeds or wires, such as caesium, iridium, or iodine into the body close to the cancer.

Iraruke ā-roto – brachytherapy

Ko tā te iraruke ā-roto, ko te puru kākano ira rukeruke, ētahi waea rānei pēra ki te caesium, te iridium, te konutawa rānei, ki roto i te tinana kia noho tata ki te wāhi matepukupuku.

Why is brachytherapy used? This is to give higher doses of radiation exactly where the cancer is without having to go through healthy tissue.

High dose rate prostate implants deliver radiation to the prostate with two to four treatments using a single, small radioactive iridium source on the end of a computer-controlled flexible wire. This radioactive source delivers the radiation by travelling through narrow tubes called catheters



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



which have previously been inserted into the prostate by your radiation oncologist under some form of anaesthesia. The tubes remain in place for one or two days until all treatments have been completed, with each treatment taking approximately 15 minutes.

Once the treatment is complete the tubes are removed. After this type of treatment, unlike those with a permanent implant, you will not need to take special precautions around others as you will not be radioactive.

Source: Cancer Backup 2008

You will be advised by your doctor, radiation therapist, or nurse about any limitations or side effects from this treatment. Radiation treatment with implants is most commonly used to treat cancers of the uterus, cervix, skin, prostate, and sometimes the mouth and neck or breast.

Your doctor might suggest treatment using brachytherapy alone or in combination with external radiation treatment.

Women with cancers of the cervix or uterus, for example, might have treatment from a linear accelerator and a boost dose with brachytherapy.

Brachytherapy for gynaecological cancer

High dose rate (HDR)

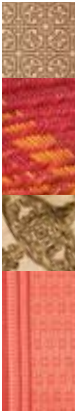
Hollow plastic or metal tubes (applicators) are inserted into the vagina. A machine feeds small 5mm radioactive metal rods (the source) into the tubes. The tubes are put in position under a general anaesthetic but for some treatments a spinal anaesthetic or light sedation might be used instead.

Te brachytherapy mō te matepukupuku āhuatanga wahine

Brachytherapy high dose (HDR)

Ka raua he ngongo kirihou, maitai rānei, ki roto i te tara. Kātahi ka purua ētahi pōro maitai iti, whai ira rukeruke ki rot o i ngā ngongo. Ka raua ngā ngongo mā te hoatu rehu tokitoki, mā te whakarokiroki iti rānei.

Each treatment takes about 10-20 minutes. There might be a number of treatments to complete the course. In some New Zealand centres, treatment is given over several days. Once the radiation treatment has finished, the applicators are removed by a doctor or nurse. This might be after each treatment or only at the end of the full course of treatment.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



You will need to stay in bed during the treatment. You might need to have a tube (catheter) put into your bladder to drain away any urine.

Internal radiation treatment might be uncomfortable and the staff will make sure that you are made comfortable and given pain relief to minimise any discomfort.

Source: Cancer Backup 2008

I ētahi wā, e ai ki te momo matepukupuku, torotoru noa iho pea ngā meneti o te maimoa, tae noa ki te maha o ngā rā, te roa.

Mutu ana te maimoa iraruke, ka tangohia ngā ngongo e te rata, e tapuhi rānei, Ka mate koe ki te noho ki roto i tō moenga i te wā o te maimoatanga. Tērā pea ka rāua he ngongo ki tō pū tōngāmimi hei tango i tō mimi.

Tērā pea ka manawarau te haumanu iraruke ā-roto, heoi anō, ka huri ngā kaimahi kia pai tō noho mā te hoatu rongoa hei patu i te mamae, hei whakaiti i te pōrearea.

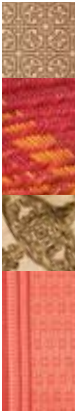
Brachytherapy for prostate cancer

Low dose rate (LDR)

Tiny radioactive seeds are inserted permanently into the prostate gland. This form of treatment can be successful for small tumours which are located within the gland. Depending on your cancer, prostate brachytherapy might be combined with external beam therapy.

Te brachytherapy mo te matepukupuku repeure

Ka kōkuhutia ngā kākano ira rukeruke pakupaku ki roto i te repeure mō ake tonu atu. He angitu tēnei momo maimoa mō ngā pukupuku iti kei roto i te repe. Ka taea te whakamahi i tēnei haumanu i te taha o ngā maimoa haumanu iraruke hihi ā-waho, mō ngā tūoro kaha mau ana te matepukupuku.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback

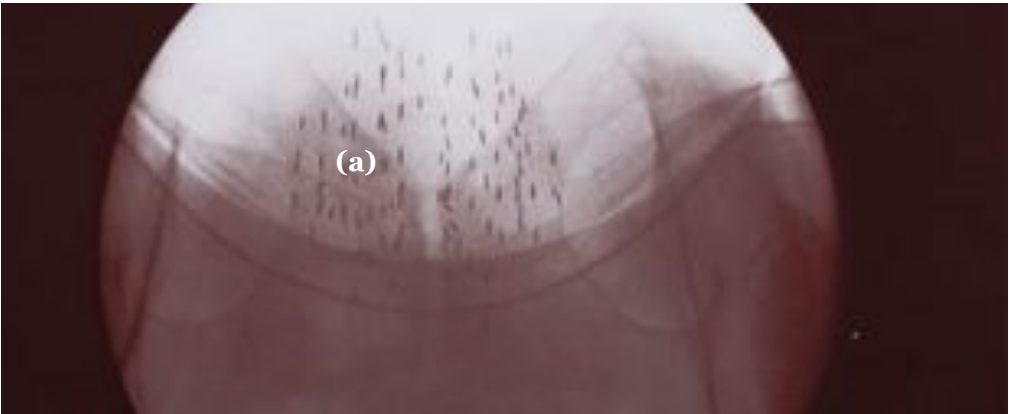


Image Above: This X-ray shows permanent radioactive seeds used for low dose rate brachytherapy in the prostate gland. (a): Multiple strands of seeds evenly spaced throughout the prostate gland.

“I can’t believe that they put 123 of those little things [seeds] at different strengths at different locations in something the size of a walnut.” **Paul**

For about two months after the treatment, children and women who are pregnant (or who might be) should not stay very close to you for long periods of time. However, it is safe for them to be in the same room as you. If you are resuming sexual intercourse, condoms should be used for two weeks after your seed implantation. This is in case a seed accidentally moves and is ejaculated in the semen.

Low dose rate brachytherapy is currently only available in the private hospital system.

Radioisotopes

Radioisotopes are given as liquids, in capsules that are swallowed, or as a drink; or by injection into a vein (as an intravenous injection). The most common type of radioisotope treatment is radioactive iodine. It is used to treat tumours of the thyroid gland, and is given as capsules. The same safety precautions are taken with this type of treatment as for other types of internal radiation treatment.

Any radioactive iodine that is not absorbed by the thyroid will be passed from the body in sweat and urine. You need to drink plenty of fluids during your treatment as this helps to flush the iodine out of the body. The amount of radiation in your body will be checked regularly and as soon as it falls to a safe level, after a few days, you will be able to go home. You might need to take some special precautions for a short time after going home – and might need to avoid young children and pregnant women for a short time. The hospital staff will explain this to you.

Radioactive iodine does not usually cause side effects, but you might feel very tired for a few weeks after having this treatment.

04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Radioisotope treatment for secondary bone cancer

Radioisotope treatment can also be given if certain types of cancer have spread to the bones (secondary cancer in the bone). A radioisotope is injected into a vein and is taken up into the bone so that the radioactivity works against the cancer cells. The aim of this treatment is to reduce pain and slow the growth of cancer in the bone. This is usually given as an outpatient. (Note that secondary bone cancer is often treated with a short course of external radiation see page 11)

Before you go home you will be given some simple advice to follow, as your urine and blood will be slightly radioactive for a few days. You might feel tired for a few weeks. You will have regular blood tests as you might become anaemic.

Talking with doctors

Before you see the doctor, it might help to write down your questions. There is a list of questions to ask your doctor at the end of this booklet which might help you.

Taking notes during the session can also help. You might find it helpful to have a family member or friend with you to take part in the discussion, take notes, or simply listen. Some people find it is helpful to record the discussion.

“So you need to go with a list. Write down what you want to know because by the time you get there you forget.” **Melinda**

Talking with others

Once you have discussed treatment options with your doctor, you might want to talk them over with someone else. Talking it over can help to sort out what course of action is right for you.

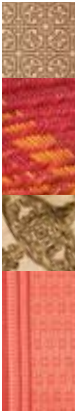
Making decisions about treatment

While some people feel overwhelmed with information, others might feel that they do not have enough. Understanding your illness, the possible treatment and side effects will help you to make decisions.

Your treatment has been designed for your situation – the outcomes and side effects associated with your treatment will differ from those experienced by other people. Discuss your situation with a member of your radiation treatment team to gain the best advice.

Sometimes, it is difficult to make decisions about what is the right treatment for you. You might feel everything is happening so fast that you do not have time to think things through. It is important not to be rushed into a decision – it must be the right one for you.

“At first I wondered if ignorance was bliss, but after a week I thought ‘No’. It’s my body and I want to know what was going to happen, and I want to know if I make a decision what will happen.” **Silei**



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



A second opinion

You might want to ask for a second opinion from another specialist. Your specialist or general practitioner can refer you. You can ask for your records to be sent to the second doctor.

Taking part in a clinical trial

Research into the causes of cancer and ways to prevent, detect and treat it is continuing. Your doctor might suggest you consider taking part in a clinical trial. You could also ask if there is a clinical trial for your particular cancer.

Clinical trials are a vital part of the search to find better treatments for cancer and are conducted to test new or modified treatments and to see if they are better than existing treatments. Many people all over the world have taken part in trials that have resulted in improvements to cancer treatment. If you are asked to take part in a trial, make sure you fully understand the reasons for the trial and what it means for your treatment.

Before deciding whether or not to join the trial, you might wish to ask your doctor:

- Which treatments are being tested and why?
- What tests are involved?
- What are the possible risks or side effects?
- How long will the trial last?
- Will I need to go into hospital for treatment?

- What will I do if any problems occur while I am in the trial?
- If the treatment I receive on the trial is successful for my cancer, is there a possibility of carrying on with the treatment after the trial?

If you decide to join a clinical trial, you will be given either the best existing treatment or a promising new treatment. You will be chosen at random to receive one treatment or the other, but either treatment will be appropriate for your condition.

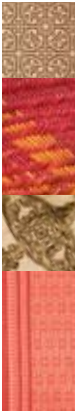
In trials, people’s health and progress are carefully monitored. If you join a trial you have the right to withdraw at any time. Doing so will not jeopardise your treatment.

Relationships and sexuality

For some people, having cancer and treatment has no effect on their sexuality and sex lives.

Sometimes the anxiety and/or depression felt by some after diagnosis or treatment can affect their sexual desire. We are all sexual beings and intimacy adds to the quality of our lives. Cancer treatment and the psychological effects of cancer might affect you and your partner in different ways.

Some people may withdraw through feelings of being unable to cope with the effects of radiation treatment to themselves or their partner. Others might feel an increased need for sexual and intimate contact for reassurance.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



It is important for you to share your fears and needs with your partner.

You might be able to find creative ways to meet these needs and cope with the fears, identifying possible solutions that suit you.

Ngā hononga me te hōkakatanga

Kāore he pānga mō ētahi tangata, o te matepukupuku, o ngā maimoa rānei, ki runga i ō rātou hōkakatanga, ki runga hoki i ngā mahi ai.

I ētahi wā, ka āhua mate te hiahia ai a ētahi nā runga i te pouri me te anipā ka pā ki a rātou whai muri i te rangona kua pāngia ki te matepukupuku, whai muri rānei i nga maimoa. He tangata hōkaka katoa tātou, a nā te takapui, ka pai ake tō tātou oranga. He rerekē ngā pānga ki a kōrua ko tō hoa, o te maimoa matepukupuku me ngā pānga hinengaro.

Tērā pea ka komi ētahi nā te whakaaro kāore rātou i te hiahia ki ngā pānga o te haumanu iraruke. Tērā pea ka kaha ake te hiahia ai, te hiahia whakapānga takapui a ētahi atu!

He mea nui kia noho tuwhera tonu ngā whakawhitiwhiti kōrero me tō hoa moe kia pai ai tā kōrua kōrero mō ō kōrua matakū, me ō kōrua hiahia.

Tērā pea ka kitea e koe he huarahi auaha hei whakatutuki i ēnei hiahia me te whakarite i ngā matakū, mā te kimi huarahi pai mōu.

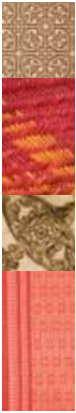
Sexual intercourse is only one of the ways that you can show affection for one another. Communicating and sharing your feelings can result in greater openness, sensitivity, and physical closeness between you.

Shows of affection, gentle touches, cuddling, and fondling can also reassure you of your need for one another.

“I said to him ‘Our sexual activities are going to be affected.’ He said ‘That’s going to be a bit of a problem’ [laughing]. We [now] engage in some sort of sexual activity – like in the morning – I touch him and he likes that.” **Silei**

Radiation treatment to the pelvic area can cause inflammation of the walls of the vagina. When inflammation reduces, scar tissue can form, which can make the vagina narrower and shorter. The vaginal walls might be dry and thin, and can stick together. Less vaginal lubricant may be produced, which can make you more likely to get vaginal infections such as thrush. To help keep the vagina supple and to prevent scar tissue from forming, you will be advised to use vaginal dilators. Vaginal dilators are tampon-shaped plastic devices with a rounded end. There are a number of different types available. They come in varying sizes. Instructions for using dilators might differ slightly from hospital to hospital, but the principles are the same.

Regular sexual intercourse can also help to keep the vagina healthy, although this might initially be uncomfortable. You can also use a vibrator or your fingers to gently stretch the vagina to keep it supple and make sexual intercourse and vaginal examinations more comfortable. Ask your doctor or treatment team for more information.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Tērā pea ka maroke te tara o ngā wāhine. Ka māeneene, ka wera ā, kāore e pai ana te mahi ai, he mamae.

Uiuitia tō rata, tō kāhui maimoa rānei mō ngā pārongo e pā ana ki tēnei. Tērā pea, mā te whakaroha tara e āwhina kia noho puare ai te tara.

Men who undergo radiation treatment to the pelvis might also experience loss of interest in sex, temporary impotence, and tiredness. These effects can be distressing, and might last for several weeks after radiation treatment has finished. Sometimes impotence is permanent.

Tērā pea, ka ngaro te hiahia ai a ngā tāne kei raro i te haumanu iraruke ki te papatoiake, ka noho whakaruhi rātou, ā ka pāngia pea ki te hiamoe. He tino uaua ēnei pānga i ētahi wā ā, tērā pea, ka haere tonu ngā pānga mō ngā wiki maha whai muri i te haumanu iraruke.

“Our sexual relationship has become a bit boring. Filled up with oestrogen you’d expect it. It would make a bit of a difference if we were in our 30s or 40s, but things are slowing down a bit anyway really.” **Gerald**

Talk to someone you trust if you are experiencing difficulties or ongoing problems with sexual relationships. Friends, family members, radiation therapists, nurses, or your doctor might be able to help.

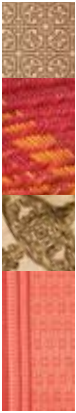
Your local Cancer Society can also provide information about sexual counselling services. You may find the Cancer Society’s booklet, *Sexuality and Cancer/Hōkakatanga me te Matepukupuku*, helpful. You can get it by phoning the Cancer Information Helpline **0800 CANCER (226 237)**, or by downloading it from our website **www.cancernz.org.nz**

“Last week we went holding hands and walking in the rain. We felt a bit insane but that was okay [laughing]. I’ve given myself permission to celebrate being touchy, touchy, feely, feely with my husband. And anything positive in that department we talk about it.” **Silei**

Fertility and contraception

If you are having pelvic radiation and/or some chemotherapy combinations, you might become infertile either temporarily or permanently. Talk to your doctor about this before you start treatment. Despite the possibility of infertility, contraception should be used (if the woman has not gone through menopause) to avoid pregnancy. There is a risk of miscarriage or birth defects for children conceived during treatment.

If you are pregnant now, talk to your doctors immediately.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Support

People react in different ways when they learn they have cancer. Feelings can be muddled and change quickly. This is quite normal and there’s no right or wrong way to feel. It might be helpful to talk about your feelings with your partner, family, friends, or with a counsellor, social worker, psychologist, or your religious/spiritual adviser. Talking to other people with cancer might also help.

Tautoko

Tautoko ā-ngākau

He nui nga whakaaro rerekē a tēnā, a tēnā, ka mōhio ana rātou kua pā te matepukupuku. I ētahi wā, ka tino pōraruraru ngā kāre-a-roto ā, ka tere hoki te huri o ngā kare ā-roto. Kei te pai noa iho tēnā, i te mea ēhara i te hē, i te tika rānei ōu kāre ā-roto. He pai mehemea ka taea e koe te kōrero mō ōu kāre-a-roto me tō hoa rangatira, tō whānau, ōu hoa, ki tētahi pouāwhina, tētahi tauwhiro, tētahi mātanga hinengaro, tētahi pouminita, kaitohutohu rānei. Tērā pea, he pai ki te kōrero ki tētahi atu e mate ana i te matepukupuku.

It is usually best to tell your family and your closest friends about your cancer. Some people worry that older people in the family or children will not cope with the news. If you do not tell your family, they will probably know that something is wrong and often think things are much worse than they are.

“The CE comes down and says ‘I heard your terrible news!’ and I thought, well, I’m not dead yet! But thank you for your concern. I know you all care, but the more you ask the more you stress.”

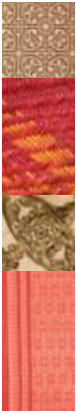
Melinda

Sometimes, you might find your family and friends do not know what to say to you: they might have difficulty with their feelings as well. Some people might feel so uncomfortable they avoid you. They may expect you to lead the way and tell them what you need. You might feel able to approach people directly or you might prefer to ask family or friends to talk to other people for you.

Anyone you tell needs time to take it in and to come back with his or her questions and fears – just like you. You can help them to adjust, just as they can help you. However, remember that while you are having treatment, your needs should come first.

“I said to them, ‘Look, you just have to support me now. It’s my time.’ It was role reversal.” **Silei**

“Some people will say, ‘Let me know if you need anything’, whereas others will just come and do things.” **Gerald**



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



When someone is diagnosed with cancer, routines and family roles change. The person who was the major source of income might now be unable to work and might be dependent on others.

A partner who was sharing chores might now have to take on extra tasks or get a job. Maintaining your usual social life, hobbies, and interests might be difficult or impossible for a while.

“At the time you think ‘Ah, stuff the business and shut it all down’, but you’ve still got to make a living after treatment. It helps having family support.” **Milly**

Cancer is not a normal event so it is important to acknowledge this and to not try to carry on with everything as before. There are a number of ways that might help you cope. For example:

- preparing simpler meals
- being more relaxed about housekeeping
- asking children, family, or friends to help more around the house.

“I had to allow myself not to feel guilty that the house was messy. It doesn’t matter that the floor was not shiny or spic and span.” **Silei**

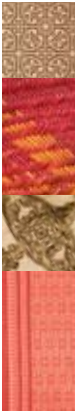
Talking with children

How much you tell children will depend on how old they are. Young children need to know that it is not their fault that you have cancer. They also need to know that you might have to go to hospital. Slightly older children can probably understand a simple explanation of what is wrong. Teenagers understand much more. Children like to know what will happen to them while you are in hospital, who will look after them, and how their daily life will be affected.

Te kōrero ki ngā tamariki

Mā te pakeke o ngā tamariki pea e tohu te wā tika ana ki te whakamōhio atu i a rātou. Me mōhio rātou ēhara nō rātou te hē kei te mate koe i te matepukupuku. Me mōhio hoki rātou tērā pea ka uru koe ki te hōhipera. Mehemea he pakeke tonu ngā tamariki, tērā pea ka mārama rātou. Kaha ake te mārama o te taiohi. E pai ana kia mōhio ngā tamariki ka aha rātou i te wā ka haere koe ki te hōhipera, mā wai rātou e tiaki, ka pēhea rātou i ngā rā e tū mai ana.

Sometimes children rebel or become quiet. Keep an eye on them or get someone else to, and get help if you need it; for example, from the school counsellor or a social worker. Ask your local Cancer Society for a copy of the booklet *What Do I Tell the Children?/He Aha He Kōrero Māku Ki Āku Tamariki?* by phoning the Cancer Information Helpline **0800 CANCER (226 237)** or by downloading it from our website **www.cancernz.org.nz**



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Cancer Society support services

Your local Cancer Society provides confidential support and information. Call your local Cancer Society and speak to support services staff or phone the Cancer Information Helpline **0800 CANCER (226 237)**. Your local Cancer Society offers a range of services for people with cancer and their families. These might include:

- volunteer drivers providing transport to treatment
- accommodation while you’re having treatment
- support and information.

The range of services offered differs in each region, so contact your local centre to find out what is available in your area.

Nga ratonga tautoko a te Kāhui Matepukupuku

Whakarato ai tō Kāhui Matepukupuku ā-rohe i ngā pārongo me ngā tautoko noho tāpu ai. Waea atu ki tō Kāhui Matepukupuku ā-rohe, ka kōrero ki ngā kaimahi i roto i te ratonga tautoko, me waea atu rānei ki ō mātou tapuhi matepukupuku i runga i te nama Waeaāwhina Pāronga Matepukupuku **0800 CANCER (226 237)**. Ka taea e ngā tari ā-rohe o te Kāhui Matepukupuku te whakarato momo ratonga mō ngā tangata mate ana i te matepukupuku me ō rātou whānau. Tērā pea:

- he tūao hei taraiwa i a koe ki ō maimoatanga.
- wāhi noho i te wā e whai ana koe i ōu maimoa
- tautoko me ngā pārongo.

Āhua rerekē ngā ratonga i tēnā, i tēnā o ngā rohe, nā reira me whakapā atu ki te rōpū kei roto i tō rohe kia mōhio ai koe ki a rātou ratonga.

Cancer Society accommodation

“It’s like a home away from home. We do all our own cooking and washing. You still have to look after those things yourself. It’s not like hospital. It’s really good to meet people, talk about it, but you’ve got your own room and your own time.” **Melinda**



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Cancer support groups

Cancer support groups offer support and information to people with cancer and their families. It can help to talk with others who have gone through the same experience. Support groups can also offer many practical suggestions and ways of coping. Ask your hospital or local Cancer Society for information on support groups in your area.

Home care

Nursing care is available at home through district or community nursing services. Your doctor or hospital can arrange this.

You might be entitled to help with household tasks during your treatment. For information, contact a social worker or the Community/District Nursing Service.

Palliative care services

Palliative care services may be offered by your local hospital or hospice. These services have particular expertise in dealing with symptoms and can offer emotional support for you and your family.

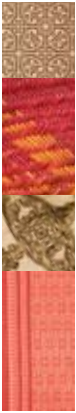
Financial assistance

Help may be available for transport and accommodation costs. Your treatment centre or local Cancer Society can advise you about your entitlements.

Financial help may be available through your local Work and Income office. Work and Income (**0800 559 009**) has pamphlets and information about financial assistance for people who are unable to work. Short-term financial help is available through the Sickness Benefit and longer-term help is provided through the Invalids Benefit. Extra help may be available, such as accommodation supplements and assistance with medical bills.

Interpreting services

New Zealand’s Health and Disability Code states that everyone has the right to access an interpreter during a medical consultation. Family or friends may assist if you and your doctor do not speak the same language, but you can also ask your doctor to provide an interpreter if using family members is inappropriate or not possible. A telephone interpreting service may be available.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



What can I do to help myself?

Many people feel that there is nothing they can do when they are told they have cancer. They feel out of control and helpless for a while. However, there are practical ways you can help yourself. A diagnosis of cancer and the schedules associated with your treatments may require a commitment to flexibility to allow room in your life to focus on your health and remove sources of stress.

“After a month I realised all these things [a clean house and total order] did not matter. It’s the people inside these walls that mattered.” Silei

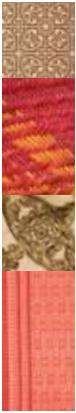
Diet and food safety

A balanced, nutritious diet will help to keep you as well as possible and cope with any side effects of treatment. The Cancer Society’s booklet, *Eating Well/Kia Pai te Kai*, gives useful advice and recipes. Phone the Cancer Information Helpline **0800 CANCER (226 237)** for a copy or download it from our website **www.cancernz.org.nz**. The hospital will also have a dietitian who can help.

Food safety is of special concern to cancer patients, especially during treatment, as you might be more at risk of an infection. To make food as safe as possible it is recommended that patients follow these guidelines:

- Wash hands thoroughly before eating and after using the bathroom.
- Keep all the surfaces and utensils you use to cook with clean.
- Wash your hands before preparing food and wash fruit and vegetables.
- Handle raw meat, fish, poultry, and eggs with care and clean thoroughly any surfaces that have been in contact with these foods.
- Keep raw meats separate from cooked food.
- Cook meat, poultry, and fish thoroughly and use pasteurised milk and juices.
- Refrigerate food promptly to minimise bacterial growth.
- When eating in restaurants avoid foods that are more at risk of bacterial contamination, such as sushi and raw or undercooked meats, fish, poultry, and eggs, and food from salad bars.
- If there is any concern about the purity of your water, for example, if you have well water, have it checked for bacterial content.

“Nutrition wise I changed from week to week. I got to the stage when I didn’t like beef anymore. I got into vegetables. I was into wholesome food. Now my cupboards don’t have any processed food.” Silei



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Exercise

Many people find regular exercise helps. Research has indicated that people who remain active cope better with their treatment. It is important to find an exercise that suits you. Ask your treatment team for suggestions.

Relaxation techniques

Some people find relaxation or meditation helps them to feel better. The social worker, nurse, or local Cancer Society will know what is available in your area.

Complementary and alternative therapies

Complementary therapy is a term used to describe any treatment or therapy that is not part of the conventional treatment of a disease. It includes things like:

- acupuncture
- relaxation therapy/meditation
- yoga
- positive imagery
- spiritual healing/cultural healing
- art
- aromatherapy/massage.

Complementary methods are not given to cure disease, but they might help control symptoms and improve wellbeing.

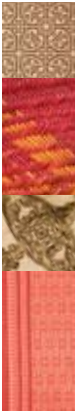
“When it was painful I transported myself to the market at home with fresh fruit. I went to songs that have no words that reminded me of home, like streams and natural sounds. I imagined myself at moments throughout my lifetime – special places on the beach, certain things we did as children. I took myself there.” **Silei**

Alternative therapy is a term used to describe any treatment or therapy not offered by your doctors. It includes things like:

- homeopathy
- naturopathy
- Chinese herbs.

Alternative treatments are sometimes promoted as cancer cures. However, they are often unproven, as they might not have been scientifically tested, or, if tested, found to be ineffective.

It is important to let your doctor know if you are using any complementary or alternative therapies. Some treatments might be harmful if they are taken at the same time as conventional treatments; for example, antioxidants, such as high dose vitamin C or other antioxidants.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



He mea nui kia whakamōhio atu koe i tō rata mehemea kei te whai koe i ngā rongoā whakaora pēra ki ngā haumanu tautoko, rerekē rānei, pērā ki te kai i ngā tāpiri irahiko pēra ki te hauora C horopeta kaha, ētahi atu tāpiri irahiko rānei. Ko te mea hoki, tērā pea ka puta he kino, ki te whai ngātahi ēnei me ngā maimoatanga.

Questions you may wish to ask

It’s easy to forget the questions you want to ask when you see your specialist or nurse, so write them down as you think of them and take your list with you to your appointment. Ask as many as you want.

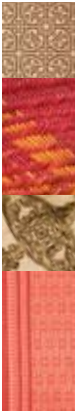
Here are some questions you may like to ask:

- What are the advantages and disadvantages of radiation treatment for me?
- Are there any other treatments I can have instead?
- Will radiation treatment cure me or control the cancer?
- What difference would it make if I waited?
- Can I have a second opinion?
- How long will my treatment last and how often will I have to have it?
- Will I have to stay in hospital?
- How long will each treatment take?

- Will I be able to carry on with my normal life when I’m not at the hospital?
- If I can have the treatment privately, how much will it cost?
- What side effects can I expect?
- How long after my treatment ends will it take for the side effects to go?
- Will there be any permanent side effects?
- Will I still be able to have children?
- Should I keep on taking my usual medicines?
- Do I need a special diet?
- What is the waiting list for this treatment?
- If I have to wait, will it affect my outcome?

If there are answers you do not understand, it is okay to say for example:

- Would you explain that again please.
- I am not sure what you mean by...
- Would you draw a diagram, or write it down please.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Advice from people who have had radiation treatment

“My only advice is to talk about it. Be very careful to listen to everyone. Be very careful because some are very forceful. If you listen to everyone the right information will become apparent whilst the unusual advice may be the stuff you tend to ignore.” **Gerald**

“The big thing is to surround yourself with positive people, music, and quiet.” **Silei**

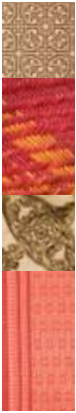
“I did a lot of visiting. I wrote to people. Even my father, he didn’t write back because that’s the way he is. I was into my genealogy. My husband and I volunteered to do my paternal genealogy. I was into that.” **Karen**

“One woman shared with me the tools of writing and I’ve still got that in the back of my mind – to actually sit down one day to do that. It’s a need to leave something. If I go tomorrow I want to leave a footprint.” **Alofa**

“Be yourself through this. Be optimistic. I think my judo has helped my whole mechanism. My discipline and training [from judo] has helped me focus and keep strong.” **Milly**

“Well, one of the things I thought about was that when you have the seeds they say you’re not supposed to sit next to a pregnant woman, but how the hell do you know that she’s pregnant [in the early stages]? So I told Human Resources at work and it was a bit like a safety and health issue.” **Paul**

“At my last appointment they said, ‘See you later’ and I said ‘Hang on a minute, I want to know this, this and this’, and they said ‘Oh, okay, let’s start at the beginning’.” **Melinda**



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Suggested websites

This booklet is part of a series called *Understanding Cancer*, which is published by the Cancer Society. These booklets, and booklets from the *Living with Cancer* series, can be viewed and downloaded from our website **www.cancernz.org.nz**

The following websites also have information on radiation treatment:

Cancer Backup (UK)
www.cancerbackup.org.uk

Cancer Council of Victoria (Australia)
www.cancervic.org.au

The Cancer Council New South Wales
www.nswcc.org.au

National Cancer Institute (USA)
www.cancer.gov/cancerinfo

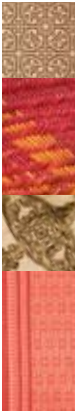
American Society for Therapeutic Radiology and Oncology (ASTRO) (USA)
www.astro.org/

The suggested websites are not maintained by the Cancer Society of New Zealand. We suggest sites we believe offer credible and responsible information, but we cannot guarantee that the information on such websites is correct, up-to-date, or evidence-based medical information. We suggest you discuss any information you find with your cancer care health professionals.

Notes

You might wish to use this space to write down any questions you want to ask your doctors, nurses, or health providers at your next appointment.

Whakamahia tēnei wāhi wātea hei tuhi pātai e hiahia ana koe ki te pātai i tō rata, ngā tapuhi, ngā kaiwhakarato hauora rānei mō te wā e hoki atu ai koe.



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Notes



Quick Links	
Advanced Cancer	
04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation — brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



Notes

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Telephone: (04) 494-7270

Auckland Division

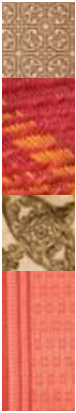
PO Box 1724, Auckland 1023
Telephone: (09) 308-0160
Covering: Auckland and Northland

Waikato/Bay of Plenty Division

PO Box 134, Hamilton 3216
Telephone: (07) 838-2027
Covering: Tauranga, Rotorua, Taupo, Thames, and Waikato

Central Districts Division

PO Box 5096, Palmerston North 4410
Telephone: (06) 364-8989
Covering: Taranaki, Wanganui, Manawatu, Hawke’s Bay, and Gisborne/East Coast



04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



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52–62 Riddiford Street, Wellington 6021
Telephone: (04) 389-8421
Covering: Marlborough, Nelson, Wairarapa, and Wellington

Canterbury/West Coast Division

PO Box 13450, Christchurch 8011
Telephone: (03) 379-5835
Covering: Canterbury, West Coast, and Ashburton

Otago/Southland Division

PO Box 6258, Dunedin 9016
Telephone: (03) 477-7447
Covering: Urban and rural Otago and Southland

Cancer Information Helpline

0800 CANCER (226 237)
www.cancernz.org.nz

Feedback

Radiation Treatment/ Haumanu Irakuke

We would like to read what you thought of this booklet: whether you found it helpful or not. If you would like to give us your feedback please fill out this questionnaire, cut it out, and send it to the Information Manager at the address at the bottom of the following page.

1. Did you find this booklet helpful?

Yes ☐ No ☐

Please give reason(s) for your answer.

2. Did you find the booklet easy to understand?

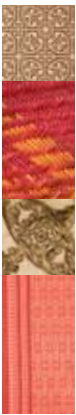
Yes ☐ No ☐

Please give reason(s) for your answer.

3. Did you have any questions not answered in the booklet?

Yes ☐ No ☐

If yes, what were they?



Quick Links	
Advanced Cancer	
04	What is radiation treatment?
04	Types of radiation treatment
05	Why is radiation used to treat cancer?
05	How does radiation treatment work?
08	The treatment team
08	Your experience of radiation treatment
09	Planning your treatment
13	Dosimetry
13	How long is a course of treatment?
14	Having treatment
15	Will I be radioactive?
20	Skin cancer treatment
20	Internal radiation – brachytherapy
23	Radioisotopes
24	Radioisotope treatment for secondary cancer in the bone
25	Relationships and sexuality
27	Fertility and contraception
28	Support
29	Talking with children
30	Cancer Society support services
32	What can I do to help myself?
34	Questions you may wish to ask
35	Advice from people who have had radiation treatment
36	Suggested websites
36	Notes
39	Feedback



4. What did you like the most about the booklet?

5. What did you like the least about the booklet?

6. Any other comments?

Personal information (optional)

Are you a person having radiation treatment, or a friend/
relative/whānau? _____

Gender: Female ☐ Male ☐ Age _____

Ethnicity (please specify): _____

Thank you for helping us review this booklet. The Editorial Team will record your feedback when it arrives, and consider it when this booklet is reviewed for its next edition.

Please return to: The Information Manager, Cancer Society of New Zealand, PO Box 12700, Wellington 6011.

Information, support, and research

The Cancer Society of New Zealand offers information and support to people with cancer and their families. Information is available on specific cancers, treatment, and living with cancer. The Cancer Society is a major funder of cancer research in New Zealand. The aim of research is to determine the causes, prevention, and effective methods of treating various types of cancer. The Society also undertakes health promotion through programmes, such as those encouraging SunSmart behaviour, healthy eating, physical activity, and discouraging smoking.

We would appreciate your support

The Cancer Society receives no direct financial support from Government so funding comes only from donations, legacies, and bequests. You can make a donation by phoning 0900 31 111, through our website, or by contacting your local Cancer Society.

The Cancer Society provides all its information (booklets, leaflets, and sheets) free of charge to health providers distributing them to the public.

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Faye Doig

Radiation Therapist, Blood and Cancer Centre, Wellington Hospital.

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Quick Links

Advanced Cancer

- 04 What is radiation treatment?
- 04 Types of radiation treatment
- 05 Why is radiation used to treat cancer?
- 05 How does radiation treatment work?
- 08 The treatment team
- 08 Your experience of radiation treatment
- 09 Planning your treatment
- 13 Dosimetry
- 13 How long is a course of treatment?
- 14 Having treatment
- 15 Will I be radioactive?
- 20 Skin cancer treatment
- 20 Internal radiation – brachytherapy
- 23 Radioisotopes
- 24 Radioisotope treatment for secondary cancer in the bone
- 25 Relationships and sexuality
- 27 Fertility and contraception
- 28 Support
- 29 Talking with children
- 30 Cancer Society support services
- 32 What can I do to help myself?
- 34 Questions you may wish to ask
- 35 Advice from people who have had radiation treatment
- 36 Suggested websites
- 36 Notes
- 39 Feedback



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