

BLOOD CANCERS AND CONDITIONS

血癌及血液疾病

A guide for patients
and families
病患與家屬指南



leukaemia &
blood cancer
NEW ZEALAND

Vision to Cure. Mission to Care.

INTRODUCTION

This booklet has been written to help you and your family understand more about blood cancers and conditions when English is not your first language.

This booklet is laid out with English content on the left-hand side of the page, and Traditional Chinese content on the right-hand side. The content has been translated from English by a certified translation service.

You may be feeling anxious or a little overwhelmed if you or someone you care for has been diagnosed with a blood cancer or blood condition. This is normal. Perhaps you have already started treatment or you are discussing different treatment options with your doctor and your family. Whatever point you are at, we hope that the information contained in this booklet is useful in answering

some of your questions. It may raise other questions, which you should discuss with your health care team.

This booklet is a generic resource for people who have been diagnosed with a range of conditions. This means that not everything mentioned in this booklet will necessarily be relevant to you.

It is not the intention of this booklet to recommend any particular form of treatment to you. You need to discuss your circumstances at all times with your doctor and treatment team.

Interpreter service

New Zealand's Code of Health and Disability states that everyone has the right to have an interpreter present when they go to a medical appointment. If a patient and their health care professional do not speak the same language, a family member or friend may assist. The hospital can organise a trained interpreter if needed.



簡介

本手冊的編寫目的是幫助母語不是英語的患者及其家屬進一步瞭解血癌及血液疾病。

手冊頁面左側為英文原文，右側為譯文。手冊內容由合格翻譯機構翻譯。

當您或您的親友確診患有血癌或血液疾病時，您可能會緊張不安或不知所措。這是正常反應。您可能已經開始治療，也可能正與您的醫師或家人商量不同的治療方案。無論您處於何種境況，我們希望本手冊所含內容能為您解答部分問題。閱讀之後，您可能會產生其他疑問，您應當諮詢您的醫療團隊。

本手冊所述內容為基本資訊，提供各類血液疾病的確診患者參考。因此，文中所述內容不一定與您的個人情況相關。

本文意圖並非向您推薦任何具體的治療方式。您需要與您的醫師和治療人員討論您的病況。

口譯服務

紐西蘭健康與身心障礙者權益法規定，每個人在就診時有權在現場安排口譯員。如果患者及其專業醫療人員使用不同的語言，家人或朋友可提供協助。如有需要，醫院可安排一名訓練有素的口譯員。

HOW TO USE THIS BOOKLET



Important information



More information available online

There are many resources available at leukaemia.org.nz such as fact sheets, booklets and more. Separate disease-specific booklets are available in English about each of the cancers and conditions mentioned in this booklet. Ask your LBC Support Services Coordinator for a copy of the relevant booklet so that your family or friends who read English can learn more.

如何使用本手冊



重要資訊



您可從網上獲取更多資訊

leukaemia.org.nz網站提供許多資源，例如概況說明書、手冊等。本文提及的每種癌症及疾病都有專門獨立的英文版手冊。您可向LBC支援服務協調員索取相關手冊，讓您的親友之中可閱讀英文者瞭解更多詳情。

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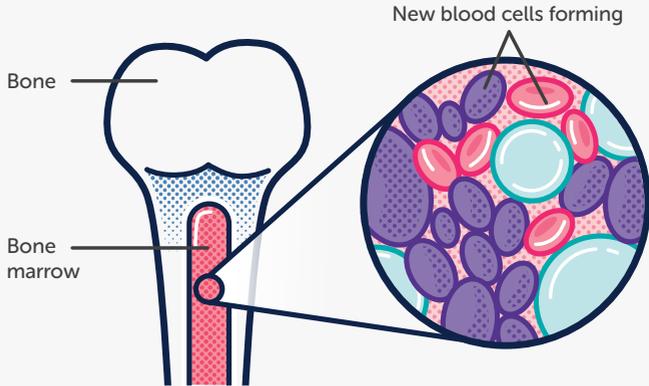
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BONE MARROW AND BLOOD STEM CELLS

Bone marrow is the spongy material inside your bones (see Figure 01).

All of your blood cells are made in your bone marrow. The process by which blood cells are made is called haemopoiesis. There are three main types of blood cells: red blood cells, white blood cells and platelets.

Figure
01
Bone marrow

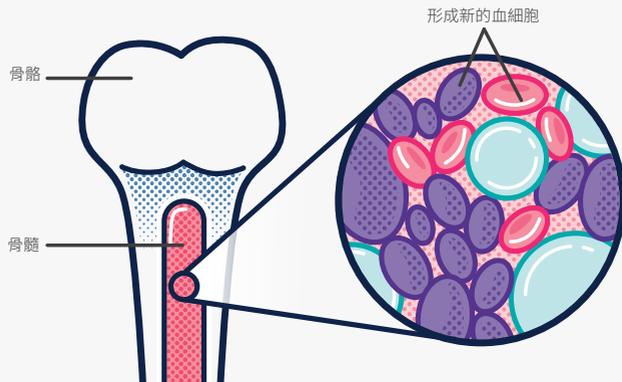


骨髓及血液幹細胞

骨髓是您骨骼內的海綿狀組織(見圖01)。

您的所有血細胞都在骨髓中產生。血細胞的製造過程稱為造血作用。血細胞主要分為三種：紅血球、白血球和血小板。

圖
01
骨髓



You might like to think of the bone marrow as the blood cell factory. The main workers of the factory are the blood stem cells. Blood stem cells create the new blood cells in your body. The two main functions of blood stem cells are to:

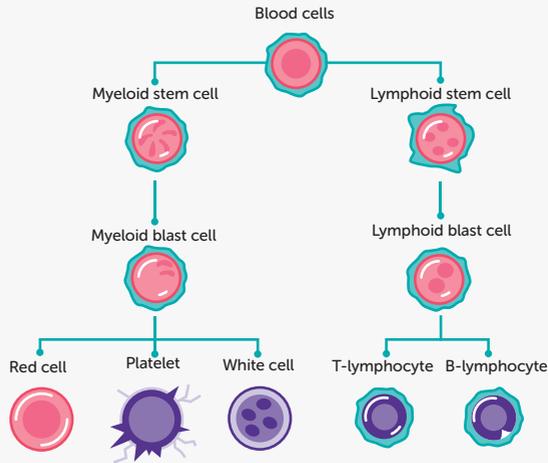
- Make exact copies of themselves.
- Divide and make two different cell groups: myeloid stem cells and lymphoid stem cells.

Myeloid and lymphoid stem cells create the blood cells for your body, including white blood cells, red blood cells and platelets.

In Figure 02 you can see that the blood stem cell has divided to create a myeloid stem cell and a lymphoid stem cell. You can also see the blood cells that each of these cell groups create.

Figure
02

The cells created from blood stem cells



您可以將骨髓視為一個血細胞工廠。工廠裡的主要工人是血幹細胞。血幹細胞會在您體內產生新的血細胞。血幹細胞的兩個主要功能是：

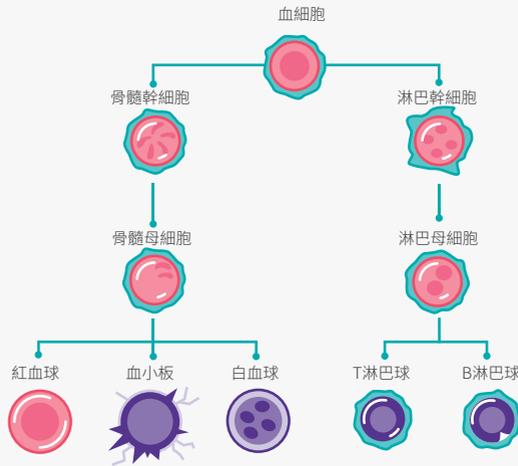
- 精確自我複製。
- 分裂出及製造兩種不同的細胞群：骨髓幹細胞和淋巴幹細胞。

骨髓幹細胞和淋巴幹細胞可為您的身體製造血細胞，包括白血球、紅血球和血小板。

在圖02中，您可看到血液幹細胞分裂成骨髓幹細胞和淋巴幹細胞。您也可以看到這些細胞群分別產生的血細胞。

圖 02

從血幹細胞產生的細胞



YOUR BLOOD

Blood is made up of plasma, red blood cells, white blood cells and platelets.

Plasma

Plasma is the light-yellow coloured fluid in which blood cells travel around your body.

Red blood cells

Red blood cells contain haemoglobin (Hb), which transports oxygen from the lungs to all parts of the body. Haemoglobin also carries carbon dioxide to the lungs where it is breathed out. A low level of haemoglobin in your body is called anaemia. Symptoms of anaemia are explained further on page 18.

White blood cells

White blood cells fight infection. For example, if bacteria entered your bloodstream through a cut, the white blood cells would attack and kill the bacteria cells before they divide and spread. If your white blood cell count is low, you are more at risk of getting an infection.

Following is a list with the names of different types of white blood cells and what they do.

- Neutrophils (new-tra-fils) kill bacteria and fungi.
- Eosinophils (ee-o-sin-o-fils) kill parasites.
- Basophils (bay-so-fils) work with neutrophils to fight infection.
- T-lymphocytes (T-lim-fo-sites) (T-cells) kill viruses, parasites and cancer cells.
- B-lymphocytes (B-cells) make antibodies, which target harmful microorganisms (small germs).
- Plasma cells develop from mature B-lymphocytes. They play an important role in protecting the body against infection by producing immunoglobulins, which are also known as antibodies.

- Monocytes (mono-sites) work with neutrophils and lymphocytes to fight infection. They also help to produce antibodies that act as scavengers (cleaners) to remove dead tissue.
- Macrophages (mac-row-fages) monocytes are known as macrophages when they move to body tissue to help fight infection there.

Neutropenia is the term given to describe a lower than normal neutrophil count. If you have a neutrophil count of less than 1.0 ($1.0 \times 10^9/L$), you are considered to be neutropenic and at risk of developing frequent and sometimes severe infections. Symptoms of infection are explained further on page 18.

Platelets

Platelets help your blood clot and prevent bleeding. If a blood vessel is damaged (for example by a cut), the platelets gather at the site of injury, stick together and form a plug to help stop the bleeding.

Thrombocytopenia (throm-bo-sy-toe-pee-nee-a) is the term used to describe a reduction in the normal platelet count. If your platelet count is low, you are at a higher risk of bleeding and tend to bruise easily.

Children

In children, normal blood cell counts vary with age. If your child has been diagnosed with a blood cancer or condition, you can ask your doctor or nurse for a copy of their blood results, which should include the normal ranges for each blood cell test for a male or female child of the same age.

您的血液

血液由血漿、紅血球、白血球和血小板組成。

血漿

血漿是一種淡黃色的液體，是血細胞在身體中流通的載體。

紅血球

紅血球中含有血紅蛋白(簡稱Hb)。血紅蛋白從肺部運載氧氣到身體各個部位，也往肺部輸送二氧化碳，然後從肺呼出二氧化碳。體內血紅蛋白值過低，即稱為貧血。有關貧血的症狀，將在第19頁進一步說明。

白血球

白血球的作用是抵抗感染。舉例而言，如果細菌經傷口進入您的血液，白血球會在細菌分裂及擴散之前攻擊並殺死它們。如果您的白血球計數低，就會比較容易受到感染。

下列為不同種類白血球的名稱及功用。

- 嗜中性白血球殺死細菌和真菌。
- 嗜酸性白血球殺死寄生蟲。
- 嗜鹼性白血球與嗜中性白血球一同抵抗感染。
- T淋巴球(T細胞)殺死病毒、寄生蟲和癌細胞。
- B淋巴球(B細胞)可產生對抗有害微生物(小病菌)的抗體。
- 血漿細胞從成熟的B淋巴球發育而成。它們可產生免疫球蛋白(亦稱為抗體)，對保護人體免受感染發揮重要作用。

- 單核球與嗜中性白血球和淋巴球一同抵抗感染。它們也有利於抗體的產生，發揮清道夫的作用，清除壞死組織。
- 巨噬細胞 – 單核球進入身體組織幫助抵抗感染時，即稱為巨噬細胞。

嗜中性白血球減少症是指嗜中性白血球量低於正常。如果您的嗜中性白血球數低於 $1.0(1.0 \times 10^9/L)$ ，即被視為患有嗜中性白血球減少症，並有經常受感染的風險，有時甚至會受到嚴重感染。有關感染的症狀，將在第19頁進一步說明。

血小板

血小板可幫助血液凝結並制止流血。如果血管受損(例如割傷)，血小板會迅速向血管破裂處大量聚集、凝結並形成血栓，從而堵住傷口，制止流血。

血小板減少症是指血小板量低於正常。如果您的血小板數很低，就較容易出血及產生淤斑。

兒童

兒童的正常血細胞數量會因年齡而變化。如果您的小孩已確診患有血癌或血液疾病，您可以向醫師或護士索取一份血液檢查結果，檢查表上應會列出相同年齡男女兒童每項血細胞檢測的正常範圍。

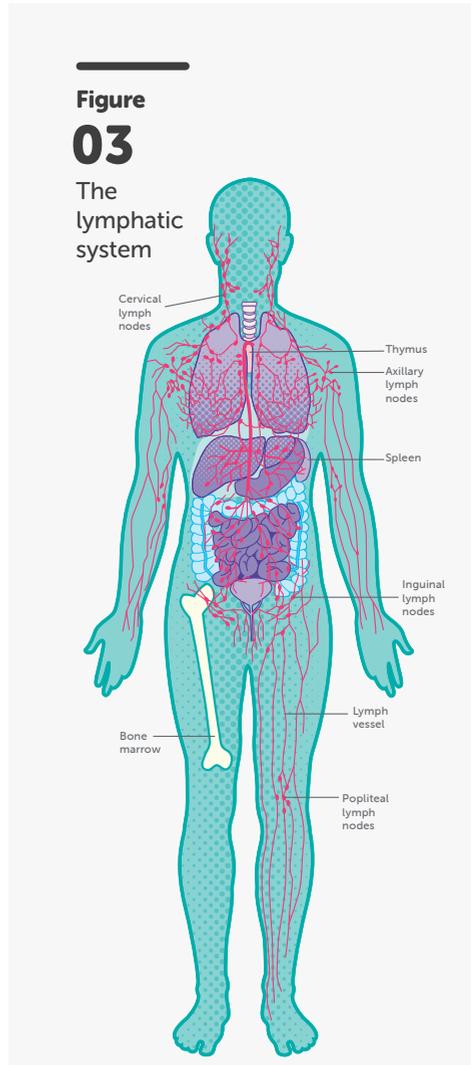
THE LYMPHATIC SYSTEM

The lymphatic system is made up of a vast network of vessels, similar to blood vessels, that branch out into all the tissues of the body (see Figure 03).

These vessels contain lymph, a colourless watery fluid that carries lymphocytes, which are specialised white blood cells that fight infection. There are two types of lymphocytes, B-lymphocytes and T-lymphocytes (also called B cells and T cells). These cells protect us by making antibodies and destroying harmful microorganisms such as bacteria and viruses. The lymphatic system forms part of the immune system, which protects our bodies against disease and infection.

Clusters of small bean-shaped organs called lymph nodes (also known as lymph glands) are found at various points throughout the lymphatic system. The lymph nodes, which are filled with lymphocytes, act as important filtering stations, cleaning the lymph fluid as it passes through them. Here, bacteria, viruses and other harmful substances are removed and destroyed. When you have an infection, for example a sore throat, you may notice that the lymph nodes under your jawbone become swollen and tender. This is because the lymphocytes that live there become activated and multiply in response to the virus or bacteria causing the infection.

The spleen (an organ on the left side of the abdomen), thymus (a gland found behind the breastbone), tonsils and adenoids (glands in the throat) and bone marrow (spongy material inside bones) all contain lymphatic tissue and are therefore considered to be part of the lymphatic system. Lymphatic tissue is also found in the stomach, gut and skin.



淋巴系統

淋巴系統是由大量淋巴管組成的網路。這些淋巴管像血管一樣延伸至身體的所有組織部位(見圖03)。

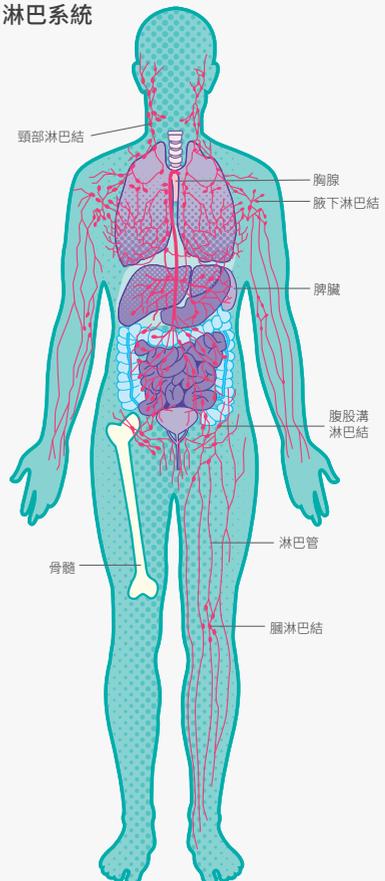
淋巴管內含有淋巴液，這是一種無色水狀液體，其作用是運輸淋巴球，也就是專門抵抗感染的白血球。淋巴球有兩種，即T淋巴球和B淋巴球(亦稱B細胞和T細胞)。這些細胞可產生抗體及消滅細菌和病毒等有害微生物，從而保護我們的健康。因此淋巴系統是免疫系統的一部分，可保護我們的身體免受疾病侵害及感染。

稱為淋巴結(亦稱淋巴腺)的小豆粒狀器官群分佈於整個淋巴系統的各個位置點。淋巴結內含有淋巴球，可發揮重要的過濾站作用，在淋巴液通過時進行過濾，清除和摧毀淋巴液內的細菌、病毒及其它有害物質。如果您受到感染，例如喉嚨疼痛，您可能發現您鎖骨下的淋巴結腫脹起來，觸摸時會痛。這是因為這裡的淋巴球經激活而分裂增殖，以對抗引發感染的病毒或細菌。

脾臟(腹部左側的器官)、胸腺(胸骨後方的腺體)、扁桃體和扁桃腺(喉嚨中的腺體)及骨髓(骨骼中的海綿狀物質)均包含淋巴組織，因此都是淋巴系統的組成部分。淋巴組織還存在於腹部、脾臟和皮膚中。

圖
03

淋巴系統



BLOOD CANCERS AND CONDITIONS

In this section we provide a brief overview of blood cancers and blood conditions. It is important to note that the information provided here is of a general nature and may not necessarily apply to the specific type or severity of disease that you or your family member have been diagnosed with.

Leukaemia

Leukaemia is a group of cancers that affect the blood and bone marrow. Leukaemia always starts in the bone marrow where developing blood cells undergo a malignant (cancerous) change. This means that they multiply in an uncontrolled way, crowding the bone marrow and interfering with normal blood cell production. Increasing numbers of abnormal cells (called blast cells or leukaemic blasts) eventually spill out of the bone marrow and travel around the body in the bloodstream. In some cases, these abnormal cells accumulate in various organs including the lymph nodes, spleen, liver and central nervous system (brain and spinal cord).

Types of leukaemia

The different types of leukaemia are classified by how quickly the disease develops, and by the type of blood cell involved.

- Acute leukaemia develops quickly and needs to be treated urgently.
- Chronic leukaemia develops more slowly and may not need to be treated for some time after diagnosis, if at all.
- Myeloid leukaemia arises from myeloid cells and are characterised by the accumulation of cancerous cells called myeloblasts.
- Lymphoid leukaemia arises from lymphoid stem cells and are categorised by the accumulation of cancerous cells called lymphoblasts.

The four main types of leukaemia are:

- Acute myeloid leukaemia (AML)
- Acute lymphoblastic leukaemia (ALL)
- Chronic myeloid leukaemia (CML)
- Chronic lymphocytic leukaemia (CLL)

Acute myeloid leukaemia (AML)

Acute myeloid leukaemia is characterised by an accumulation of abnormal immature myeloid cells. It develops and progresses very quickly, which is why it is called 'acute'. Once AML is diagnosed, treatment starts very quickly to reduce symptoms and kill the leukaemic cells.

Acute myeloid leukaemia is rare in children and more common in adults.

Acute lymphoblastic leukaemia (ALL)

ALL is characterised by abnormal immature lymphoid cells and also develops very quickly like AML. ALL is more common in children than adults but can affect people of all ages.

Chronic myeloid leukaemia (CML)

CML is characterised by the slow accumulation of abnormal myeloid cells. The onset is gradual and progression is generally over months and years. Many people may have no symptoms when they are diagnosed and only found out about their condition by coincidence from a routine blood test.

CML can occur at any age but it is more common in adults over age 40 and slightly more common in men. Over time CML may

血癌及血液疾病

本節將概要介紹血癌及血液疾病。必須注意的是，本文僅提供一般性的資訊，不一定適用於您或您的家人確診的疾病類型或病症嚴重程度。

白血病

白血病是多種影響血液及骨髓的癌症之統稱。所有白血病的病因都由骨髓而起，即骨髓裡發育中的血細胞產生惡性(癌性)病變。這表示血細胞的增殖不受控制，在骨髓中大量聚集，干擾正常的血細胞生長。數量越來越多的異常細胞(稱為芽細胞或白血病母細胞)最終會溢出骨髓之外，然後在體內血液中循環。某些情況下，這些異常細胞會在不同的器官中聚集，包括淋巴結、脾臟、肝臟及中央神經系統(大腦和脊髓)。

白血病種類

白血病根據癌變的擴散速度以及發生病變的血細胞類型分類。

- 急性白血病的病變擴散很快，需要立即進行治療。
- 慢性白血病的病變擴散較慢，確診後一段時間內可能不需要進行治療。
- 骨髓性白血病因髓細胞引起，特徵表現為骨髓母細胞的聚集。
- 淋巴性白血病因淋巴幹細胞引起，特徵表現為淋巴母細胞的聚集。

四種主要的白血病是：

- 急性骨髓性白血病(AML)
- 急性淋巴性白血病(ALL)
- 慢性骨髓性白血病(CML)
- 慢性淋巴性白血病(CLL)

急性骨髓性白血病(AML)

急性骨髓性白血病的特徵表現為異常、未成熟的髓細胞聚集。此白血病會迅速發展及惡化，所以稱之為「急性」。一旦確診為AML之後，很快便會開始進行治療，以減輕症狀及殺死白血病細胞。

急性骨髓性白血病在兒童之中很少見，較常見於成人。

急性淋巴性白血病(ALL)

急性淋巴性白血病的特徵表現為異常、未成熟的淋巴細胞，也像急性骨髓性白血病一樣發展非常迅速。比起成人，ALL較常見於兒童，但任何年齡層都有可能受影響。

慢性骨髓性白血病(CML)

慢性骨髓性白血病的特徵表現為異常的髓細胞緩慢聚集。發病過程漸進，進展通常持續數個月至數年。許多人在確診時沒有任何症狀，而只是碰巧從常規血液檢驗中發現自己的病情。

CML可能發生於任何年齡，但較常見於40歲以上的成人，稍多見於男性。CML可能隨著時間的進展演變成更具侵略性的疾病，例如急性白血病。

progress to a more aggressive type of disease resembling acute leukaemia.

Chronic lymphocytic leukaemia (CLL)

CLL is a slow-growing type of leukaemia that affects the lymphoid blood cell line. Many people are diagnosed without experiencing any symptoms and may not immediately start treatment. Some people with CLL may just be monitored through regular blood tests and appointments with their doctor.

The majority of people with CLL are over the age of 60 but it can be diagnosed in younger people around the age of 40 years.

Cause

The cause of leukaemia is usually unknown and there are likely to be a number of factors involved.

Like all cancers, leukaemia may result from a change in one or more of the genes that normally control the growth and development of blood cells.

Some risk factors for leukaemia are:

- High levels of radiation
- Exposure to chemicals
- Previous chemotherapy for another cancer
- Inherited genetic disorder

Pre-existing blood conditions may have a higher chance of developing leukaemia. For example, MDS and CML can develop into acute leukaemia if unmanaged.

Signs and symptoms

The main symptoms of leukaemia are caused by lack of normal blood cells.

Low red blood cells (anaemia) may cause the following symptoms:

- Lack of energy
- Feeling tired all the time
- Dizziness
- Shortness of breath
- Pale skin

Low platelets (thrombocytopenia) may cause the following symptoms:

- Bruising easily
- Frequent and severe nosebleeds
- Unusually heavy periods in women
- Bleeding, e.g. bleeding gums
- Red or purple pinhead-sized skin spots (called petechiae)

Low white blood cells, specifically low neutrophils (neutropenia), may cause the following symptoms:

- Fever
- Reoccurring infections



Important information

If you have a low white blood cell count, you are at risk of getting potentially serious infections. The body's immune system that usually fights infection doesn't work so a small skin infection can quickly get worse and become fatal. It is important to call the hospital if you are feeling unwell or have a high

temperature. Check with your haematologist or nurse about how to check your temperature properly with a thermometer, and what is considered to be a 'high temperature'. They will usually want to start intravenous (IV) antibiotics and take blood tests as soon as possible.

慢性淋巴性白血病(CLL)

慢性淋巴性白血病是一種進展緩慢的白血病，會影響淋巴性血細胞。許多人確診時沒有任何症狀，因此可能不會立即開始治療。有些CLL患者可能只透過定期血液檢查及醫師看診進行監控。

大多數CLL患者的年齡在60歲以上，但40歲左右的患者也可能被診斷出此症。

病因

白血病的病因通常不得而知，一般可能會有多种因素。

和所有癌症一樣，白血病的病因可能是控制血細胞生長和發育的一項或多項基因發生異變。

白血病的危險因素包括：

- 高量輻射
- 暴露於化學物質
- 之前接受過其他癌症的化療
- 遺傳性基因異常

既有的血液疾病可能會增加罹患白血病的機會。例如MDS和CML若不加以控制，可能會發展成急性白血病。

病徵與症狀

白血病的主要症狀由缺乏正常的血細胞引起。

紅血球數過低(貧血)可能導致下列症狀：

- 體力不足
- 一直感覺疲倦
- 頭暈
- 呼吸急促
- 皮膚蒼白

血小板數過低(血小板減少症)可能導致下列症狀：

- 容易瘀傷
- 經常嚴重流鼻血
- 女性經血異常多
- 出血，例如牙齦出血
- 針頭大小的紅色或紫色皮膚斑塊(稱為瘀點)

白血球數過低，特別是嗜中性白血球過低(嗜中性白血球減少症)可能導致下列症狀：

- 發燒
- 反覆感染



重要資訊

白血球數過低，則有潛在的嚴重感染風險。由於抵抗感染的人體免疫系統無法正常工作，因此即使只有小塊皮膚感染也可能迅速惡化而致命。如果您感到不適或發高燒，請

務必致電醫院。請諮詢您的血液科醫生或護士，瞭解如何用溫度計正確檢查體溫，以及如何才算“高燒”。一般上，他們會盡快為您開始靜脈注射(IV)抗生素並進行血液檢查。

Treatment

Treatment varies depending on the exact type of leukaemia you have and other factors like age, general health and severity of the disease.

The main treatment for leukaemia is chemotherapy. This is given to destroy the leukaemia cells and allow the bone marrow to function normally again. Usually people are given a combination of chemotherapy treatments that work together to kill the leukaemia cells.

The different treatment options are explained in more detail on page 38.

Lymphoma

Lymphoma is cancer of the lymphatic system. Lymphoma arises when developing lymphocytes (a type of white blood cell) undergo malignant (cancerous) change and multiply in an uncontrolled way. Increasing numbers of abnormal lymphocytes (called lymphoma cells) accumulate and form collections of cancer cells (also called malignant tumours) in lymph nodes and other parts of the body.

Types of lymphoma

There are many different subtypes of lymphoma. Five of these subtypes belong to a group of diseases called Hodgkin lymphoma. All other subtypes are commonly grouped together and called non-Hodgkin lymphoma.

Non-Hodgkin lymphoma

Non-Hodgkin lymphoma actually represents many different subtypes of lymphoma. Each subtype can act differently and their treatment and monitoring is likely to be

different as well. In addition, lymphoma can arise from a B-lymphocyte (most common) or a T-lymphocyte. Non-Hodgkin lymphoma can be broadly divided into two groups, indolent lymphoma or aggressive lymphoma.

Indolent (low grade) lymphoma is a type of lymphoma that grows slowly. It may cause few symptoms and may not need to be treated urgently. Follicular lymphoma is one type of indolent lymphoma. It is the second most common type of lymphoma.

Aggressive (high grade) lymphoma is a type of lymphoma that grows quickly and treatment is needed at the time of diagnosis. Because these lymphomas grow quickly, they tend to respond well to chemotherapy and radiotherapy. Diffuse large B-cell lymphoma is the most common type of lymphoma.

Hodgkin lymphoma

In terms of presentation and treatment, this lymphoma is most similar to diffuse large B-cell lymphoma. It has five different subtypes. The chemotherapy combination is different to that of other aggressive lymphomas so the correct histologic diagnosis is important in distinguishing lymphoma types.

Cause

The incidence of lymphoma is increasing every year. In most cases we don't know why but there are likely to be a number of factors involved. Like all cancers, lymphoma may result from a change in one or more of the genes that normally control the growth and development of blood cells. We know that people with a weakened immune system (either due to an immune-deficiency disease or drugs that suppress the function of the

治療

治療方式取決於您的具體白血病類型，以及年齡、整體健康狀況和病情的嚴重程度。

主要的治療方式是化學療法。其作用是摧毀腫瘤細胞，恢復骨髓正常功能。通常，患者會接受合併性化療來殺死白血病細胞。

有關不同治療選項的詳細說明，請參閱第39頁。

淋巴瘤

淋巴瘤是淋巴系統癌症。淋巴瘤因發育中的淋巴細胞（一種白血球）產生惡性（癌性）病變並不受控增殖而引起。淋巴細胞（即淋巴瘤細胞）數量會異常增加，不斷聚集，然後在淋巴結和身體其他部位產生癌細胞群（也稱為惡性腫瘤）。

淋巴瘤種類

淋巴瘤有多種類型。其中五種亞型屬於何杰金氏淋巴瘤。所有其他亞型則歸類為非何杰金氏淋巴瘤。

非何杰金氏淋巴瘤

非何杰金氏淋巴瘤實際上包括多種不同的淋巴瘤亞型。每種亞型的特性不盡相同，因此其治療及監控方式可能也有所不同。此外，淋巴瘤可能源自B淋巴球（最常見）或T淋巴球。非何杰金氏淋巴瘤大致上分為兩大類：緩性淋巴瘤或侵襲性淋巴瘤。

緩性（低惡性）淋巴瘤是一種生長緩慢的淋巴瘤。它的症狀一般不多，不一定需要立即治療。濾泡性淋巴瘤是一種緩性淋巴瘤。它是第二常見的淋巴瘤類型。

侵襲性（高惡性）淋巴瘤是一種生長迅速的淋巴瘤，確診時便需要進行治療。由於這類淋巴瘤生長迅速，通常對化療及放射療法的反應較佳。瀰漫性大B細胞淋巴瘤是最常見的淋巴瘤類型。

何杰金氏淋巴瘤

就表現和治療方式而言，這種淋巴瘤與瀰漫性大B細胞淋巴瘤最為相似。它有五種不同的亞型。其化療組合與其他侵襲性淋巴瘤不同，因此正確的組織病理學診斷對區分淋巴瘤類型極為重要。

病因

淋巴瘤的發病率逐年上升。在大多數情況下，我們不清楚其病因，但可能與多項因素有關。和所有癌症一樣，淋巴瘤的病因可能是控制血細胞生長和發育的一項或多項基因發生異變。我們知道免疫系統虛弱的人（因免疫缺乏症或抑制免疫系統功能的藥物所致）患上淋巴瘤的風險較高。特定類型的病毒感染也可能導致此病症，尤其是免疫系統虛弱者。

immune system) are at an increased risk of developing lymphoma. Certain types of viral infections may also play a role, especially in people with a weakened immune system.

Signs and symptoms

Lymphoma commonly presents as a firm painless swelling of a lymph node (swollen gland), usually in the neck, under the arms or in the groin. Lymphoma may develop in the lymph nodes in deeper parts of the body like those found in the abdomen (causing swelling and pain), or in the chest (causing coughing, discomfort in the chest and difficulty breathing).

Other symptoms may include:

- Recurrent fever
- Excessive sweating at night
- Unintentional weight loss
- Persistent lack of energy
- Generalised itching
- New skin rashes
- Fatigue
- Unexplained and/or persistent cough
- Abdominal swelling and pain

The signs and symptoms of lymphoma can often be mistaken for other less-serious illnesses.

Treatment

Treatment will vary depending on the type of lymphoma diagnosed, how fast it is likely to grow and cause problems in the body, as well as the person's age and general health.

Some types of lymphoma grow slowly and cause few troubling symptoms, and may not need to be treated urgently. Others grow more quickly and need to be treated as soon as they are diagnosed. Treatment can involve chemotherapy, radiotherapy and

immunotherapy. Occasionally, a stem cell transplant is used to treat lymphoma that has relapsed (come back), or where there is a high likelihood that the lymphoma will relapse in the future.

There is more information about these treatments on page 38.

Myeloma

Myeloma (also known as multiple myeloma) is a cancer of the plasma cells. Plasma cells are mature B-lymphocytes that live predominantly in the bone marrow and normally produce antibodies to help fight infection. In myeloma, plasma cells undergo a malignant (cancerous) change and multiply in an uncontrolled way, causing problems in different parts of the body. Large numbers of abnormal plasma cells, called myeloma cells, collect in the bone marrow and may interfere with blood cell production, and damage adjacent bones, causing pain. Myeloma cells produce an abnormal type of antibody called a paraprotein that can usually be detected in blood and/or urine.

Each year in New Zealand approximately 400 people are diagnosed with myeloma. The majority of those diagnosed are over the age of 50 years.

Cause

In most cases, the cause of myeloma remains unknown, but there are likely to be a number of factors involved. Like all cancers, myeloma may result from a change in one or more of the genes that normally control the growth and development of blood cells. In a small number of cases, exposure to high doses of radiation and ongoing exposure to certain industrial or environmental chemicals may be involved.

病徵與症狀

淋巴瘤的一般表現為某個淋巴結出現硬腫塊(腫脹腺體),無疼痛感,通常出現在頸部、腋下或腹股溝內。淋巴瘤還會進一步擴散到身體其他部位的淋巴結,例如腹部(引起氣脹和疼痛)或胸部(引起咳嗽、胸脹和呼吸困難)。

其他可能的症狀包括:

- 反覆發燒
- 夜間大量出汗
- 非預期的體重下降
- 持續體力不足
- 全身瘙癢
- 新發皮疹
- 疲勞
- 不明原因的咳嗽及/或咳嗽不止
- 腹部腫脹及疼痛

淋巴瘤的病徵及症狀經常會被誤以為是其他較不嚴重的疾病。

治療

治療方式取決於確診的淋巴瘤類型、體內的病變擴展和惡化速度、患者的年齡和整體健康狀況。

有些淋巴瘤生長緩慢,症狀不明顯,可能不需要採取緊急治療。有些淋巴瘤則生長迅速,一經確診,必須及時進行治療。治療方式包括化學治療、放射治療和免疫治療。有時候,淋巴瘤復發或者將來很可能復發時,會採用幹細胞移植進行治療。

有關此病症的治療詳情,請參閱第39頁。

骨髓瘤

骨髓瘤(亦稱為多發性骨髓瘤)是一種血漿細胞癌症。血漿細胞是發育成熟的B淋巴球,主要存在骨髓中,通常作用是產生抗體,抵禦感染。在骨髓瘤中,血漿細胞發生惡性(癌性)病變並異常不受控增殖,為身體不同部位帶來問題。大量血漿細胞(稱為骨髓瘤細胞)聚集在骨髓中,干擾血細胞的製造並破壞相鄰的骨骼,進而產生疼痛。骨髓瘤細胞會產生異常的抗體,即病變蛋白,通常可透過血液及/或尿液檢查診斷。

在紐西蘭,每年大約有400人被診斷患有骨髓瘤。大多數確診患者的年齡都在50歲以上。

病因

大多數病例的骨髓瘤起因仍不得而知,但可能與多種因素相關。與所有癌症一樣,骨髓瘤可能是由於控制血細胞生長和發育的一項或多項基因發生異變造成。在少數情況下,暴露於高劑量輻射以及不斷暴露於特定的工業或環境化學物質都有可能導致此症。

Signs and symptoms

The most common symptoms of myeloma are:

- **Bone pain and/or fractures**
Often myeloma cells can interfere with the normal bone maintenance process and cause holes, or lesions in some bones. This can make the bones more fragile and at risk of getting fractures.
- **Fatigue**
Persistent fatigue or an overwhelming tiredness is common in myeloma. It might be caused by the disease itself or from myeloma treatment.
- **Recurring infection**
Infections can be more common because myeloma and its treatments lower the immune system, making you at higher risk of getting infections.
- **Anaemia**
Anaemia is when you have a low number of red blood cells, which can happen with myeloma or as a side effect of treatment.
- **Hypercalcaemia (high calcium levels)**
High levels of calcium in the blood can occur as a result of bone damage, which releases too much calcium into the bloodstream. Symptoms of hypercalcaemia can include thirst, nausea, vomiting, confusion and/or constipation.
- **Kidney damage**
Myeloma produces an abnormal protein (called paraprotein) that can damage the kidneys.
- **Peripheral neuropathy (damage to nerves in hands and/or feet)**
Peripheral neuropathy can be caused by myeloma itself or as a side effect to some common treatments used for myeloma. The nerves that are affected can cause tingling, altered sensation and pain.

It is important to remember that not everyone will experience all of these signs and symptoms.

Treatment

The main form of treatment is chemotherapy, usually in combination with other drugs. Steroids and other types of anti-myeloma drugs are often used in combination with chemotherapy, which work effectively together.

High-dose chemotherapy followed by an autologous stem cell transplant is also used for younger patients who are fit enough and would benefit from this type of treatment.

Drugs called bisphosphonates are a standard part of therapy used to strengthen bones affected by myeloma.

Radiotherapy may also be used to prevent and treat problems caused by bone damage.

There is more information about these treatments on page 38.

Myelodysplastic syndrome

Myelodysplastic syndrome (MDS) is a condition that affects normal blood cell production in the bone marrow. In MDS, the bone marrow does not produce enough red blood cells, white blood cells and/or platelets, and can produce an excess of immature blood cells known as blast cells.

There are several different types of MDS. The disease can vary in its severity and the extent to which blood cell production is disrupted. Some people may have few symptoms, (for example anaemia), while others might have very low numbers of blood cells causing increased risk of infection, bruising and bleeding, and severe anaemia.

病徵與症狀

最常見的骨髓瘤症狀是骨骼疼痛。

- **骨痛及/或骨折**

骨髓瘤細胞通常會干擾正常的骨骼維護過程，並導致某些骨骼出現孔洞或病變。這會使骨骼變得更脆弱並有發生骨折的風險。

- **疲勞**

持續性疲勞或極度疲倦是骨髓瘤的常見症狀。它可能是由疾病本身或骨髓瘤治療引起。

- **反覆性感染**

感染可能更常見，因為骨髓瘤及其治療會降低免疫能力，導致您更易遭受感染。

- **貧血**

貧血指您的紅細胞數量過低，這可能是由骨髓瘤或治療的副作用引起。

- **高鈣血症(鈣量過高)**

骨骼損傷可能導致血液中的鈣含量過高，隨之將過多的鈣釋放至血液循環系統。高鈣血症的症狀可能包括口渴、反胃、嘔吐、意識混亂及/或便秘。

- **腎損傷**

骨髓瘤會產生異常的蛋白質(稱為副蛋白)，導致腎臟損傷。

- **周邊神經病變(造成手及/或腳部神經損害)**

周邊神經病變可能由骨髓瘤本身引起，也可能是骨髓瘤某些常用治療方法的副作用。受影響的神經會引起刺痛、感覺改變及疼痛。

務必記住一點，不是每個患者都會經歷以上所有病徵及症狀。

治療

主要治療方式是化療，通常會合併其他藥物。化療經常合併類固醇及其他抗骨髓瘤藥物，達到更佳的綜合療效。

對於合適並可從中受益的年輕患者，也會採取高劑量化療、隨後進行自體幹細胞移植的治療方式。

雙膦酸鹽是標準療程用藥之一，用於增強受骨髓瘤影響的骨骼。

放射治療也可用來防止和治療骨骼損壞引起的問題。

有關此病症的治療詳情，請參閱第39頁。

骨髓發育不良症候群

骨髓發育不良症候群(簡稱MDS)是一種影響骨髓中正常血細胞生長的病症。在MDS中，骨髓製造的紅血球、白血球及/或血小板太少，同時製造過多發育不良的血細胞(芽細胞)。

MDS有多種類型。病情輕重及其血細胞生長的受損程度因人而異。有些患者的症狀可能不多(例如貧血)，而其他患者的血細胞數量可能極低，導致感染、瘀傷和出血以及嚴重貧血的風險增加。

高達30%的MDS患者會發展成急性骨髓性白血病(AML)。雖然MDS可能發生於任何年齡，但大多數病例發生於60歲以上。

In up to 30 per cent of people with MDS, it can progress to a type of leukaemia called acute myeloid leukaemia (AML). While MDS can occur at any age, the majority of cases develop over the age of 60 years.

Cause

MDS occurs as a result of a change (or mutation) in one or more of the genes that normally control the growth and development of blood cells. The exact reason for this change remains unclear but there are likely to be a number of factors involved. Increasing age remains the greatest risk factor for developing MDS. Exposure to high doses of radiation and ongoing exposure to certain industrial or environmental chemicals may be linked to the development of MDS.

People who have been previously treated for cancer or other conditions with cytotoxic chemotherapy are at an increased risk of developing what is called secondary or treatment-related MDS.

Signs and symptoms

In general, the types of symptoms you might experience depend on the severity of your disease, and the type of blood cell that is affected.

In many cases, MDS develops slowly and may be picked up with a routine blood test if you have no symptoms.

The most common symptoms are those caused by anaemia (low red blood cells). These symptoms include:

- Persistent tiredness or fatigue
- Dizziness
- Paleness
- Shortness of breath when physically active

Other symptoms may include frequent or repeated infections and slow healing, and increased or unexplained bleeding or bruising.

Treatment

Treatment for MDS will vary depending on several factors, including the severity of disease.

Many people, particularly in the early stages of MDS, don't have any symptoms and don't need to be treated. In these cases, the doctor may simply recommend regular blood tests to carefully monitor health and blood levels.

In more severe or progressive disease, chemotherapy may be used to control a rising blast cell count, and allow the bone marrow to resume normal blood cell production. This may involve low-dose chemotherapy given in tablet form, or more intensive treatment using a combination of drugs given subcutaneously (injected under the skin like an insulin injection).

The main treatment for the majority of people with MDS is supportive care. This involves the use of antibiotics to treat infection and (where necessary) blood transfusions to replenish vital numbers of red blood cells and platelets. Some people might need growth factors that are used to promote normal blood cell production in the bone marrow.

病因

MDS是由於控制血細胞生長和發育的一項或多項基因異變(或突變)造成。此一異變的確切原因尚不清楚,但可能與多種因素有關。年齡增長是導致MDS的最大危險因素。患上MDS可能與暴露於高劑量輻射及長期暴露於特定工業或環境化學物質可能有關。

曾經接受癌症治療或其他細胞毒素化療的患者患上繼發性MDS或治療相關MDS的風險較高。

病徵與症狀

一般而言,患者的症狀決定於其病症嚴重程度及受影響的細胞類型。

在許多情況下,MDS的發展緩慢,如果患者沒有顯現任何症狀,可能會透過常規血液檢查診斷出此病症。

最常見的症狀是貧血(紅血球過少)引起的症狀。這些症狀包括:

- 持續感到疲累或疲勞
- 頭暈
- 臉色蒼白
- 進行體力活動時呼吸短促

其它症狀還包括頻繁或反覆感染、傷口癒合緩慢以及次數增加或原因不明的流血或淤傷。

治療

MDS的治療方式視多種因素而定,包括病情的嚴重程度。

許多人 – 尤其是早期MDS患者 – 沒有任何症狀,不需要進行治療。在這種情況下,醫師可能只建議接受常規檢查,嚴密監測患者的健康狀況及血液數值。

若病情較嚴重或惡化速度快,則需採用化療來控制病變細胞量的增加,使骨髓恢復正常的血細胞製造水平。這可能包括口服藥片形式的低劑量化學治療,或皮下注射(像注射胰島素一樣從皮下注射)多種藥物進行強化治療。

大多數MDS患者的主要治療方式是支持性療法。這包括採用抗生素治療感染以及(必要時)進行輸血,以補充所需數量的紅血球和血小板。部分患者可能需要採用生長因子來刺激骨髓正常製造血細胞。

年紀較輕的患者也可採用幹細胞移植進行治療。這類治療可提高部分MDS患者的治愈機率。

有關此病症的治療詳情,請參閱第39頁。

A stem cell transplant may be used in younger patients who have good general health. This type of intensive treatment may increase the chance of a cure.

There is more information about these treatments on page 38.

Myeloproliferative neoplasms (MPN)

MPNs are a group of diseases that affect normal blood cell production in the bone marrow. The bone marrow produces too many blood cells (either red blood cells, white blood cells or platelets). When present in large numbers, these cells cannot function properly and cause various problems in the body.

There are four main types of chronic myeloproliferative neoplasms:

- **Essential thrombocythaemia (ET)**
An overproduction of platelets.
- **Polycythaemia vera (PV)**
An overproduction of red blood cells as well as platelets and white blood cells.
- **Primary myelofibrosis (MF)**
Excessive blood cell production damages bone marrow tissue and is gradually replaced with abnormal fibrous tissue.
- **Chronic myeloid leukaemia (CML).**

In most cases, these blood cancers develop slowly and get worse gradually over many years. In some people it can progress to acute myeloid leukaemia (AML).

While MPNs can occur at any age, the majority of cases occur between the ages of 40 and 60 years. They are uncommon under the age of 20 years and rarely occur in children.

Cause

The exact cause of MPNs remains unknown but there are likely to be a number of factors involved, including a mutation in one or more of the genes that normally control the growth and development of blood cells.

Signs and symptoms

Symptoms vary depending on the particular type of MPN involved. Symptoms of an enlarged spleen (splenomegaly) are common, which include feelings of discomfort, pain or fullness in the upper left side of the abdomen. Excess circulating blood cells can cause easy bruising and bleeding, or blood clotting problems.

Treatment

Treatment will vary depending on the type of MPN you have, the severity of your symptoms, your age and general health. Treatment is generally aimed at reducing excess numbers of blood cells in the bloodstream and preventing and/or treating any symptoms and complications of the disease. It may include the use of oral chemotherapy drugs or other agents such as interferon, aspirin or anagrelide.

Sometimes people may also need to have a procedure called venesection, which is the removal of blood (a very similar procedure to donating blood).

骨髓增生性腫瘤(MPN)

骨髓增生性腫瘤(簡稱MPN)是一系列影響骨髓內血細胞正常製造的疾病。骨髓製造太多血細胞(紅血球、白血球或血小板)。由於數量過多，這些細胞無法發揮正常功能，進而對身體造成各種問題。

骨髓增生性腫瘤主要有四種：

- **原發性血小板增多症(ET)**
血小板製造過量。
- **真性多血症(PV)**
紅血球、血小板及/或白血球製造過量。
- **原發性骨髓纖維化(MF)**
血細胞製造過量導致骨髓組織受損，並逐漸被異常的纖維組織取代。
- **慢性骨髓性白血病(CML)**。

在大多數情況下，這類血癌發展緩慢，多年以後才會逐漸惡化。有些患者會發展成急性骨髓性白血病(AML)。

雖然MPN可能發生在任何年齡，但大多數病例發生於40至60歲之間。20歲以下的患者不常見，兒童患者也很罕見。

病因

MPN的確切病因仍然未知，但可能與多種因素有關，包括控制血細胞生長和發育的一項或多項基因發生突變。

病徵與症狀

症狀與具體的MPN類型有關。常見的症狀是脾臟腫大，包括感覺不適、腹部左上側疼痛或圓脹。血細胞過量循環會使患者容易產生淤傷、出血或發生凝血問題。

治療

治療方式取決於您的MPN類型、症狀嚴重程度、您的年齡及整體健康狀況。一般上，治療的目標是減少血液中過多的血細胞，以及防止和/或治療所有症狀與併發症。治療方式還包括口服化療藥物或其他如干擾素、阿斯匹靈或阿那格雷(Anagrelide)等藥物。

有時候，患者可能還需要透過靜脈放血的方式消滅血液(程序與捐血類似)。

TESTS AND INVESTIGATIONS

There are several common tests your doctor will ask you to have that will help them make a diagnosis.

These tests are:

- Blood tests
- Bone marrow biopsy
- X-rays and other imaging tests

Blood tests

The main blood test used to diagnose blood cancers is called a full blood count (FBC) or complete blood count (CBC). Blood is taken from a vein in your arm and sent to a laboratory where it is looked at under a microscope.

The doctor might also ask to test your blood chemistry, which may include your levels

of calcium, creatinine or different proteins important for detecting some blood cancers. Very specialised genetic testing can be done to confirm the diagnosis of certain blood cancers (i.e. MPNs).

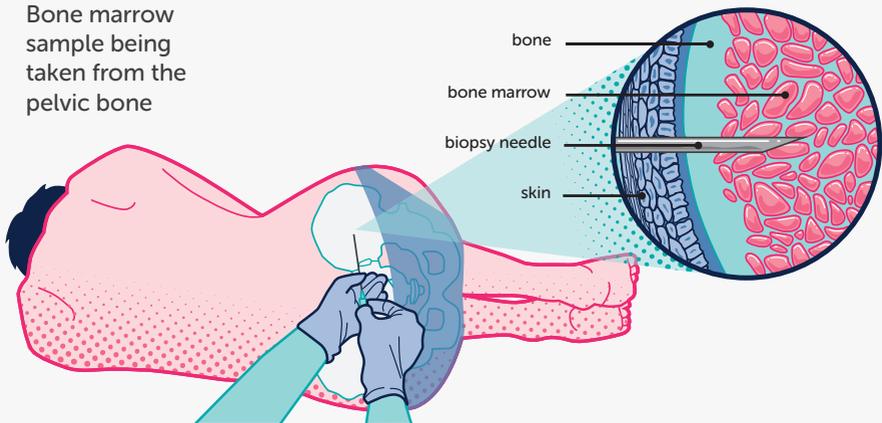
Bone marrow biopsy

A bone marrow biopsy is a test where a doctor takes samples of your bone marrow and sends them to a laboratory to be looked at under a microscope. A sample of bone marrow is usually taken from the back of your hip bone (the iliac crest) (see Figure 04).

Figure

04

Bone marrow sample being taken from the pelvic bone



測試及檢驗

您的醫師會要求您進行幾種常見的檢查，幫助他們做出診斷。

這些檢查包括：

- 血液檢驗
- 骨髓活檢
- X光及其他影像學檢查

驗血

用於診斷血癌的主要血液檢驗稱為全血細胞計數。血液從您手臂上的靜脈抽出，然後被送至實驗室，在顯微鏡下進行觀察。

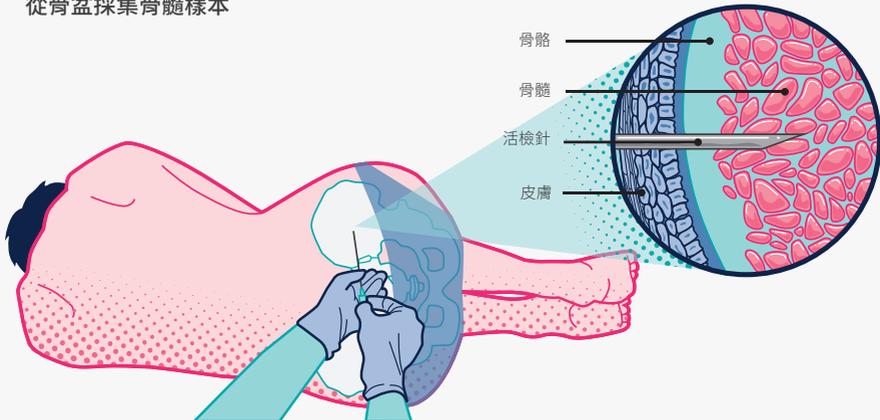
醫師可能還會要求檢驗您的血液化學成份，這可能包括您的鈣、肌酐或其他對檢測某些血癌很重要的不同蛋白質含量。醫師還可進行非常專門的基因測試，以確認某些血癌(例如骨髓增生性腫瘤)的診斷結果。

骨髓活檢

骨髓活檢是指醫師採集您的骨髓樣本，然後送至實驗室在顯微鏡下進行觀察的檢驗。骨髓樣本通常會從您的髌骨背面(髌嵴)採集(見圖04)。

圖 04

從骨盆採集骨髓樣本



To do a bone marrow biopsy, the doctor puts a long needle through your numbed skin into the bone and then into the bone marrow. Bone marrow has liquid and solid parts. A small sample of your bone marrow liquid is taken out. This is called a bone marrow aspirate. A sample of the solid part of the bone marrow is also taken. This is called a bone marrow trephine (tre-fine).

Some people who have had a bone marrow biopsy say that it was painful and other people describe it as uncomfortable. Everybody is different. We recommend that you bring a support person with you when you have a bone marrow biopsy. If you have a sedative, you will still feel a bit drowsy afterwards. Your support person can make sure you get home safely.

After the biopsy, your doctor or nurse will put a plaster or small dressing over the biopsy site. You may need paracetamol to help ease some discomfort in the area afterwards. Your doctor or nurse will talk to you about this.

X-rays and other imaging tests

Many people require x-rays or other imaging tests as part of being diagnosed with a blood cancer and also for ongoing monitoring. These might include:

- Chest x-ray to detect a chest infection or any other abnormalities.
- Electrocardiogram (ECG) and echocardiogram (ECHO) to see how well your heart is working.
- CT scan (computer-assisted tomography scan) or ultrasound may be used if there is concern about specific localised involvement or damage caused by the disease.
- MRI scan (magnetic resonance imaging scan) may be used in diagnosis and monitoring.
- A full-body x-ray or skeletal survey may be done to check for any evidence of bone damage. X-rays are usually taken of your skull, spine (backbone), ribs, pelvis (hips), legs and arms.
- PET scan (positron emission tomography scan) uses a specialised type of intravenous (IV) contrast and CT scan technique to look for areas where there may be increased tissue activity due to disease involvement. PET scan is less commonly used in New Zealand but may be requested by your haematologist.

Your haematologist will inform you of what tests they recommend you have and why. Everyone is different so tests may vary from person to person.

進行骨髓活檢時，醫師會將一根長針穿過您已上麻醉劑的皮膚刺入骨骼，然後刺入骨髓中。骨髓包含液體和固體部分。醫師會取出一小部分的骨髓液。這被稱為骨髓抽吸。此外也會採集骨髓固體部分的樣本。這被稱為骨髓環鑽。

有些接受過骨髓活檢的人說這個過程很痛苦，另外有些人則形容為很不舒服。每個人的感覺不盡相同。我們建議您接受骨髓活檢時讓一位支持者陪同您。如果您已接受鎮靜劑，完成活檢之後仍會感到有些昏沈。您的支持者可帶您安全回家。

活檢結束之後，您的醫師或護士會在活檢部位貼上膠布或簡單的敷料。之後您可能需要服用撲熱息痛，幫助緩解該部位的不適感。您的醫師或護士會告知您這些事項。

X光及其他影像學檢查

許多人需要接受X光或其他影像學檢查，作為血癌診斷及持續監測的程序之一。這些檢查可能包括：

- 胸部X光檢查，檢測胸部感染或任何其他異常狀況。
- 心電圖(ECG)及心臟超音波(ECHO)檢查可觀察您的心臟運作情況。
- 若懷疑疾病引起特定的局部病變或損傷，可使用CT掃描(電腦斷層掃描)或超音波檢查。
- MRI掃描(核磁共振掃描)可用於診斷及監測。
- 可能會進行全身X光或骨骼檢查，查看是否有任何骨骼損傷的證據。X光檢查通常會拍攝您的頭骨、脊柱(骨幹)、肋骨、骨盆(臀部)、腿和手臂。
- PET掃描(正子斷層造影掃描)使用一種特殊的靜脈顯影劑和CT掃描技術來尋找可能因病變導致組織活動增加的區域。PET掃描在紐西蘭較不常見，但您的血液科醫師可能要求您進行此掃描。

您的血液科醫師將會告訴您他們建議您進行哪些檢查及其原因。各人的情況不同，因此檢驗也會因人而異。

WHAT HEALTH PROFESSIONALS WILL I MEET AFTER MY DIAGNOSIS?

You will meet a range of health professionals who are part of your health care team.

Each health professional has a different area of expertise in cancer and cancer care. Working as a team, these health professionals will give you and your family the best treatment and support so that you can live as well as possible following a blood cancer diagnosis.

Some of the health professionals you will meet are, in alphabetical order:

- **Charge nurse** – A senior nurse in charge in the outpatient department or on the hospital ward.
- **Clinical nurse specialist (CNS)** – A nurse with advanced skills in a specific area of cancer care. This person works closely with you and members of your health care team to help you manage the symptoms and side effects of your blood cancer and treatment.
- **Dietitian** – A dietitian will advise on what to eat and drink to minimise symptoms or side effects from your treatment. A dietitian may prescribe supplements to make sure you are getting the calories and nutrients you need.
- **General practitioner (GP)** – A family and community doctor might already be involved with your blood cancer diagnosis. They will be informed throughout your diagnosis and will work together with other health professionals to support you at home, in the community and after treatment.
- **Haematologist** – A doctor who specialises in the treatment of blood cancers or blood conditions. A haematologist will be in charge of overseeing your treatment and follow-up.
- **Occupational therapist** – Helps you manage everyday activities and achieve activities you want or need to do.
- **Outpatient clinic nurse** – A nurse who gives you treatment as an outpatient or who works alongside a doctor in the clinic.
- **Pharmacist** – Prepares and checks your medications. A pharmacist can advise you on how to take your medicine and the possible side effects.
- **Physiotherapist** – Specialises in maintaining and improving body movement and mobility. A physiotherapist (or physio) can help you regain independence and fitness.
- **Psychologist** – Specialises in helping you manage the emotional challenges of a blood cancer diagnosis, such as stress, anxiety and depression.
- **Registrar** – A doctor who is training to become a haematologist. You will often see your registrar on the ward and in the clinic. Your registrar works very closely with your haematologist.

診斷後，我將會接觸到哪些醫療專業人員？

您將接觸到各類醫療專業人員，他們都是您的醫療團隊的一員。

每個醫療專業人員在癌症與癌症治療方面都有各自不同的專業領域。這些醫療專業人員將以團隊合作的方式為您和您家人提供最佳治療與支持，讓您在確診癌症之後儘可能享有良好的生活品質。

您將接觸到的醫療專業人員包括：

- **護士長** – 門診部或醫院病房的負責資深護士。
- **臨床專科護理師(CNS)** – 在特定癌症治療領域具備高階技能的護士。他將與您和您的醫療團隊成員緊密合作，協助您應對血癌與治療的症狀及副作用。
- **營養師** – 營養師會提供您飲食建議，儘可能減少您的治療產生的症狀及副作用。營養師可能會開一些營養補充劑，確保您獲得所需的熱量及營養素。
- **全科醫師(GP)** – 家庭及社區醫師可能已參與您的血癌診斷。他們將在您的整個診斷過程中獲知情況，並與其他醫療專業人員合作，在家中、社區及治療之後為您提供支援。
- **血液科醫師** – 專門治療血癌或血液疾病的醫生。血液科醫師將負責監督您的治療及後續追蹤。
- **職業治療師** – 幫助您管理日常活動及實現您想要或需要從事的活動。
- **門診診所護士** – 為您提供門診治療或協助診所醫師的護士。
- **藥劑師** – 準備及檢查您的藥物。藥劑師會告知您如何使用您的藥物以及可能的副作用。
- **物理治療師** – 專門負責維持及改善身體運動及活動能力。物理治療師(或簡稱理療師)可協助您恢復自主能力及健康。
- **心理醫師** – 專門協助您應付血癌診斷的情緒挑戰，例如壓力、焦慮及抑鬱。
- **在訓專科醫師** – 正在受訓成為血液科醫師的醫生。您經常會在病房及診所內看到您的在訓專科醫師。您的在訓專科醫師會與血液科醫師緊密合作。
- **社工人員** – 協助您管理確診血癌帶來的生活起居及情感影響，例如提供居家、工作或學校方面的管理建議。
- **病房護士** – 在您住院期間照顧您的護士。

- **Social worker** – Helps you manage the practical and emotional impact of having a diagnosis of a blood cancer, such as advice about managing at home, employment or school.
- **Ward nurse** – A nurse who looks after you during your stay in hospital.

Other people you might hear about or meet are:

- **Palliative care team** – Doctors, nurses and other health care professionals whose roles include managing symptoms of blood cancers, helping improve quality of life and supporting people at the end of life.
- **Spiritual care and cultural support** – People who can support your individual cultural, spiritual or religious needs.
- **Non-Governmental organisation (NGO)** – Gives emotional and practical support for those affected by cancer, e.g. Leukaemia & Blood Cancer New Zealand.
- **Leukaemia & Blood Cancer New Zealand Support Services Coordinator**, a professional who provides education as well as practical and emotional support. Phone 0800 15 10 15.

您可能聽說或接觸的其他人員包括：

- **舒緩療護團隊** – 這些醫師、護士及其他醫療專業人員的職責包括為生命末期的患者管理血癌症狀、協助改善生活品質及給予支持。
- **靈性照護及文化支持** – 可支持您的個人文化、心靈或宗教需求的人員。
- **非政府組織(NGO)** – 為受癌症影響者提供情感及實質支持，例如紐西蘭白血病與血癌基金會。
- **紐西蘭白血病與血癌基金會支援服務協調員** – 提供教育及實質與情感支持的專業人員。電話0800 15 10 15。

TREATMENTS

In this section we provide a brief overview of treatments for blood cancers and blood conditions. It is important to note that the information provided here is of a general nature and may not necessarily apply to the specific type or severity of disease that you or your family member might have been diagnosed with.

Chemotherapy

Chemotherapy literally means therapy with chemicals. Many chemotherapy drugs are also called cytotoxic (cell toxic) drugs because they kill cells, especially ones that multiply quickly such as cancer cells.

Chemotherapy usually involves a combination of drugs (combination chemotherapy). The names of different combinations of drugs are commonly derived from the first letters of each of the drugs used.

Chemotherapy is often given in several cycles (or courses) with a rest period of a few weeks in between each cycle. This is to allow the body to recover from the side effects of chemotherapy.

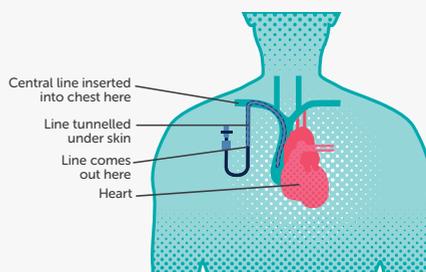
How is chemotherapy given?

There are many ways of giving chemotherapy. It can be given through a vein (intravenously or IV), usually in your arm or hand, under the skin (subcutaneously) or in a tablet form (orally).

If you are having several cycles of chemotherapy, your haematologist may recommend that you have a central venous catheter (also called a central line) or portacath inserted (see Figure 05). A central venous catheter is a special line inserted through the skin into a large vein in your arm,

neck or chest. Once it's in place, chemotherapy and any other IV drugs can be given through the line and blood tests can also usually be taken from the line, without needing frequent needle pricks. There are several different kinds of central lines used, some are intended for short-term use while others remain in place for months and even years.

Figure
05
Central line placement



Most people don't need to be admitted to hospital for IV chemotherapy, instead it is usually given in the outpatient department of the hospital. Sometimes, however, you may need to be admitted to the ward for a short while.

治療

本章將概要介紹血癌及血液疾病的治療方式。必須注意的是，本文僅提供一般性的資訊，不一定適用於您或您的家人確診的疾病類型或病症嚴重程度。

化學治療

顧名思義，化學治療即是採用化學藥物的治療。許多化學治療藥物也稱為細胞毒素藥物，因為此類藥物會殺死細胞，尤其是繁殖快速的癌細胞。

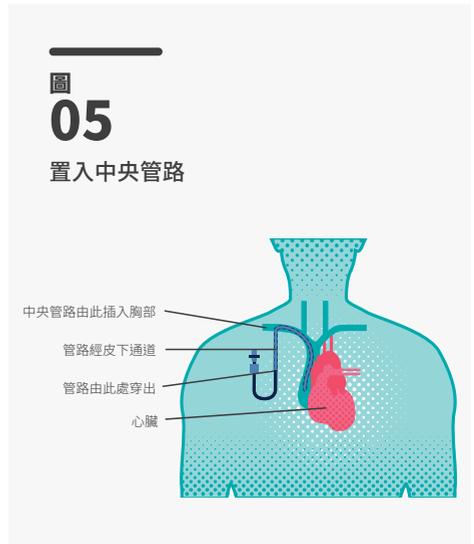
化學治療通常搭配多種藥物(合併用藥化療)。不同合併藥物的名稱通常由所採用藥物的首字母組成。

化療通常分成幾個週期(療程)進行，各療程之間會有數週休息時間。這是為了讓身體從化療的副作用中復原。

化療如何進行？

化療有多種進行方式。其中包括靜脈給藥(通常是注入您手臂或手上的一條靜脈)、皮下給藥(皮下注射)或口服藥片形式。

如果需要進行數個療程的化療，您的血液科醫師可能會建議您置入中央靜脈導管(亦稱為中央管路)或植入式人工血管(Portacath)(見圖05)。中央靜脈導管是一種特殊管路，透過皮膚置入您手臂、頸部或胸部的一條大靜脈內。置入之後，便可透過該管路進行化療或輸入其它靜脈注射藥物，也可從該管路抽血進行血液檢驗，免除頻繁的針頭穿刺。使用的中央管路有幾種不同類型，有些供短期使用，有些可放置數月、甚至數年之久。



大多數患者不需要為靜脈注射化療住院，通常可在醫院的門診部進行。但有時候，您可能需要短期住院。

Side effects of chemotherapy

Chemotherapy kills cells that multiply quickly, such as cancer cells. It also causes damage to fast-growing normal cells including hair cells and cells in your mouth, gut and bone marrow. The side effects of chemotherapy occur as a result of this damage.

The types of side effects and their severity vary from person to person depending on the type of chemotherapy given and how you respond to it. There is no doubt that side effects can be very unpleasant at times but it is good to remember that most of them are temporary and reversible. It is important that you report any side effects that you are experiencing to your nurse or doctor because many of them can be treated successfully, reducing any unnecessary discomfort for you.

Effects on the bone marrow

Chemotherapy temporarily affects the bone marrow's ability to produce adequate numbers of white blood cells, platelets and red blood cells. As a result, your blood counts will generally fall within a couple of weeks of treatment. The length of time it takes for your bone marrow and blood counts to recover mainly depends on the type of chemotherapy given. The three main complications of low blood counts are:

- Increased risk of infection
- Bruising and bleeding
- Anaemia

Infection

Your white blood cell count is at its lowest usually between 10 to 14 days after having your chemotherapy, during which time you will be at a higher risk of developing an infection. A blood test will sometimes

be arranged for you during this time to check your blood count. At this stage you will also be neutropenic, which means that your neutrophil count is low. Neutrophils are important white blood cells that help us to fight infection. While your white blood cell count is low you should take sensible precautions to help prevent infection, which include the following:

- **Being around other people**
Stay away from crowds of people and avoid people with infections that are contagious (for example head cold, flu, chicken pox).
- **Preparing and eating food**
Your haematologist or nurse will tell you what foods to avoid if your white blood cell count is low. They may suggest you have a 'neutropenic' diet or 'clean' diet. This type of diet protects you from germs found in some food and drinks. It is important to be very careful when preparing and cooking food. You need to:
 - Always wash your hands before preparing or eating food.
 - Tell your family to wash their hands when preparing food.
 - Prepare food in a clean place.
 - Wash fruit and vegetables well.
 - Make sure reheated food is very hot.
 - Do not reheat food more than once.
 - Eat food before its best before/ use-by date.
 - Prepare raw meat on a separate chopping board and make sure it is then cooked properly.



**More information
available online**

化療的副作用

化療可殺死所有快速繁殖的細胞，例如癌細胞。它也會破壞快速生長的正常細胞，包括頭髮細胞，以及您口腔、脾臟及骨髓內的細胞。這些破壞便會產生化療的副作用。

副作用的類型及其嚴重程度因人而異，視您接受的化療方式及您的身體反應而定。無可否認，這些副作用有時非常難受，但是大多數副作用都是暫時的，過後便可恢復正常。您必須向您的護士或醫師匯報您的副作用情況，因為大多數副作用都可成功治癒，為您減少不必要的痛苦。

對骨髓的影響

化療會暫時影響骨髓製造適當數量之白血球、血小板和紅血球的能力。因此在治療後的數週內，您的血液計數通常會下降。骨髓和血液計數恢復正常所需的時間根據您的化療方式而異。血液計數過低所引起的三種主要併發症：

- 增加感染風險
- 淤傷及出血
- 貧血

感染

您的白血球數量通常會在化療後的10至14天降至最低點，因此在此期間，您遭受感染的風險較高。在這段期間，有時候會安排您接受血液檢驗，以檢查您的血液指數。在此階段，您可能還會出現嗜中性白血球減少症，即表示您的嗜中性白血球數過低。嗜中性白血球是幫助我們抵抗感染的重要白血球。當您的白血球數過低時，您應當採取有助預防感染的適當措施，包括：

• 接觸他人

遠離人群，並避免接觸患有傳染性感染的人群(例如感冒、流感、水痘)。

• 準備及攝取食物

如果您的白血球數過低，您的血液科醫師或護士會告訴您應該避免攝取哪些食物。他們可能會建議您採用「嗜中性白血球減少」飲食或「潔淨」飲食。這些飲食法可保護您免受某些食物和飲料中的病菌侵害。在準備及烹調食物時務必要非常小心。你需要：

- 準備食物或進食前，務必洗手。
- 告訴家人在準備食物時洗手。
- 在乾淨之處準備食物。
- 洗淨水果和蔬菜。
- 確保食物重新加熱後溫度夠高。
- 勿重複加熱食物一次以上。
- 在食物的有效日期/食用期限前食用。
- 在單獨專用的砧板上準備生肉，並確保徹底煮熟。



您可從網上獲取更多資訊

- **Keeping yourself clean**

When you have a low white blood cell count, you are more likely to get an infection from germs on your body. You need to:

- Have a shower or bath every day.
- Use a clean towel.
- Wash your hands after using the toilet and ask family members to do the same.
- Clean your teeth regularly with a soft brush.
- If you have a central IV line, make sure it stays clean and check for signs of infection such as redness, swelling, pus or pain.

- **Gardening**

Garden soil can cause infections in people with a low white blood cell count. You need to:

- Wear gloves, as soil and potting mix can have harmful germs in it.
- Wash any cuts you get from gardening very thoroughly.

- Wear a mask to avoid breathing in particles.

- **Pets**

When you have a low white blood cell count, you may get an infection from pets. You need to:

- Always wash your hands after touching animals.
- Do not let a pet lick your face.
- Keep pets clean and treat them for worms and fleas.
- Don't touch the litter tray or dog poo.

Your haematologist and nurse will advise you on how to reduce your risk of infection while your white blood cell count is low.

If you do develop an infection you may experience a fever (high temperature), which could be accompanied by an episode of rigor, where you shiver uncontrollably. Infections while you are neutropenic can be quite serious and need to be treated with antibiotics as soon as possible.



Important information

It is important that you contact your haematologist or the hospital for advice immediately (at any time of the day or night) if you are feeling very unwell, or if you experience any of the following:

- A temperature of 38°C or over and/or an episode of shivering.
- Bleeding or bruising, for example blood in your urine, faeces or sputum, bleeding gums or a persistent nosebleed.
- Nausea or vomiting that prevents you from eating or drinking or taking your normal medications.
- Diarrhoea, stomach cramps or constipation.
- Coughing or shortness of breath.
- The presence of a new rash, reddening of the skin, itching.
- A persistent headache.
- New pain or soreness anywhere.
- If you cut or otherwise injure yourself.
- If you notice pain, swelling, redness or pus anywhere on your body.

- **保持身體清潔**

當白血球計數較低時，您更可能會受到體內細菌的感染。你需要：

- 每天洗澡或沖澡。
- 使用乾淨的毛巾。
- 如廁後要洗手，並要求家人照做。
- 定期用軟毛牙刷清潔牙齒。
- 如果您已置入一條中央靜脈管路，請務必保持其清潔並檢查是否有任何感染跡象，例如發紅、腫脹、流膿或疼痛。

- **園藝活動**

花園土可能導致白血球計數低的人受到感染。你需要：

- 戴手套，因為泥土和盆栽混合土中可能含有有害細菌。
- 徹底清洗從事園藝活動時產生的任何傷口。
- 戴口罩，避免吸入雜質顆粒。

- **寵物**

當您的白血球計數過低時，可能會受到寵物的感染。你需要：

- 接觸動物之後務必洗手。
- 勿讓寵物舔您的臉。
- 保持寵物乾淨並清除其寄生蟲及跳蚤。
- 勿觸摸便盆或狗屎。

您的醫師和護士會建議您在白血球數過低時應如何降低感染風險。

如果遭受感染，您可能會發高燒，並伴有寒顫症狀，即禁不住顫抖。在您嗜中性白血球數過低時遭受感染，情況可能會很嚴重，必須儘快接受抗生素治療。



重要資訊

如果您感到極度不適或出現下列任何一種情況，請務必立即(在白天或晚上的任何時間)聯絡您的血液科醫師或醫院以尋求建議：

- 體溫達38°C或以上並/或出現寒顫。
- 出血或淤傷，例如尿液、糞便或痰中有血、牙齦出血或持續流鼻血。
- 反胃或嘔吐，導致您無法進食、飲水或服用常規藥物。
- 腹瀉、胃絞痛或便秘。
- 咳嗽或呼吸急促。
- 出現新皮疹、皮膚發紅、發癢。
- 持續頭痛。
- 任何部位出現新的疼痛或酸痛。
- 如果您割傷或因其他原因受傷。
- 如果您發現身體任何一處疼痛、腫脹、發紅或流膿。

Bruising and/or bleeding

Your platelet count may also be affected and you could become thrombocytopenic (a low number of platelets circulating in the blood). When your platelet count is very low you can bruise and bleed more easily. During this time, it is helpful to avoid sharp objects in your mouth such as potato chips as these can cut your gums. Using a soft toothbrush also helps protect your gums. In some severe cases, a transfusion of platelets is given to reduce the risk of bleeding until the platelet count recovers.

Anaemia

If your red blood cell count and haemoglobin levels drop you may become anaemic. When you are anaemic you feel more tired and lethargic than usual. Other symptoms of anaemia include weakness, dizziness, pale skin and feeling short of breath when exercising.

If your haemoglobin level is very low, your doctor may prescribe a blood transfusion.

Nausea and vomiting

Nausea and vomiting are often associated with chemotherapy. You will be given anti-sickness drugs (otherwise known as antiemetics) before and for a few days after your chemotherapy treatment. Be sure to tell your haematologist if you think the antiemetics are not working for you and you still feel sick. There are many different types of antiemetics that can be tried. A mild sedative may also be used to help stop you feeling sick. This will help you relax but it might make you a little sleepy.

Some people find that eating smaller meals more frequently during the day, rather than a few large meals, helps to reduce nausea and vomiting. Drinking ginger ale or soda water and eating dry toast may also help if you are feeling sick. Getting plenty of fresh air, avoiding strong or offensive smells and taking the prescribed anti-sickness drugs as recommended by the nurse and doctor should also help.

Mucositis

Mucositis occurs when chemotherapy breaks down the rapidly divided epithelial cells lining the gastrointestinal tract (which goes from the mouth to the anus). This leaves the mucosal tissue (mucous membrane) open to ulceration and infection. More commonly the mouth and throat are affected and can cause pain, ulcers and increased saliva.

Mucositis can be quite painful and may require you to take pain relief medications. Mouthwashes/rinses are also helpful. Please ask your nurse for the hospital's recommended mouthwash guidelines as some products that you can buy at the supermarket might not be suitable.

Bowel changes

Chemotherapy can cause damage to the lining of your bowels, which can cause cramping and diarrhoea. Be sure to tell your health care team if you are experiencing these symptoms. It is also important to tell them if you are experiencing constipation, discomfort or tenderness when you are going to the toilet. Some treatment can cause constipation but there are medications to help prevent or fix this. It's important to drink plenty of water to stay well hydrated.

淤斑及/或出血

您的血小板量也可能受到影響，並可能患上血小板減少症(血液循環中的血小板數過低)。血小板量非常低時，您將很容易產生淤斑及出血。在這段期間，最好避免吃尖銳的食物，例如薯片等可能會劃破您的牙齦。使用刷毛柔軟的牙刷也有助於保護您的牙齦。某些嚴重病例會接受輸注血小板來降低出血風險，直到血小板量恢復正常為止。

貧血

如果您的紅血球數量和血紅蛋白值下降，您可能會貧血。貧血時，您會感覺比平常更疲累、更嗜睡。其他貧血症狀包括虛弱無力、頭暈、膚色蒼白及運動時呼吸急促。

如果您的血紅蛋白值非常低，醫師可能會指示您接受輸血。

反胃和嘔吐

化療經常會導致反胃和嘔吐。化療前和化療後數日，醫師會給您止吐藥物(或稱止吐劑)。如果您覺得止吐劑對您無效，或者您仍然感到不舒服，請務必告知您的血液科醫師。您可以試用多種不同的止吐劑，也可使用輕度鎮靜劑幫助抑制您的不適感。這可幫助您放鬆，但也會使您感覺有些困倦。

有些患者發現一天少吃多餐，有助於減少反胃和嘔吐症狀。喝薑汁飲料或蘇打水以及吃乾吐司也可幫助您減少不適感。多呼吸新鮮空氣、避免強烈或刺激的氣味及服用醫師和護士建議的止吐藥也會有幫助。

黏膜炎

當化療物質分解胃腸道(從口至肛門)內快速分裂的上皮細胞時，將會引發黏膜炎。黏膜組織(黏膜)容易形成潰瘍及受感染。更常見的是口腔和喉嚨受到影響，並可能導致疼痛、潰瘍及唾液增加。

黏膜炎可能相當疼痛，因此您可能需要服用止痛藥。漱口劑也會有幫助。在超級市場購買的某些產品可能不合適，請諮詢您的護士有關醫院的漱口劑建議指南。

腸道變化

化療可能會損壞您腸道的黏膜，會引起腹部痙攣和腹瀉。如果出現這類症狀，請務必告知您的醫護團隊。如果出現便秘或上廁所時感覺不適或疼痛，也必須告知他們。有些治療會導致便秘，但您可透過一些藥物預防或解決便秘。重要的是飲用大量的水，保持體內水份充足。

Hair loss

Alopecia (or hair loss) is a very common side effect of some types of chemotherapy drugs. It is usually temporary and your hair will start growing back after you stop chemotherapy. You may lose hair all over your body including eyebrows, eyelashes and pubic hair.

There are several things you can do to make yourself more comfortable if you lose your hair, which include:

- Wear a warm hat or beanie outside or overnight to keep your head warm.
- Wear a sunhat and apply sunscreen when you are outside as your skin will be sensitive to the sun and can burn easily.

Fatigue

Most people experience some degree of tiredness following chemotherapy. Extreme tiredness and fatigue is one of the most common symptoms and can be distressing and hard to manage. Fatigue is not relieved by rest and affects you physically, psychologically and socially. It may improve when treatment is finished but for some people it may last for months or years.

It is important to eat well, drink plenty of water and remain active by doing gentle exercise. It is important to talk to your nurse and doctors about your symptoms of fatigue and how you are coping.



**More information
available online**

Radiotherapy

Radiotherapy (also known as radiation therapy) uses high-energy x-rays to kill cancer cells and shrink tumours. Radiotherapy is generally regarded as local therapy because it only destroys cancer cells in the treated area.

The radiation field is the area of the body that is being treated. Common radiation fields include the mantle field (neck, chest and armpit), the upper abdominal field (abdomen and sometimes the spleen) and the pelvic field (hips and groin). Due to improvements in technology, the radiation field can often be individualised to maximise treatment and reduce side effects. This is termed 'involved field' or 'involved site' radiation therapy.

What is involved in radiotherapy?

Before you start radiotherapy, a radiation specialist (a doctor who specialises in treating people with radiotherapy) will carefully calculate the correct dose of radiation therapy for you. The areas of your body that need to be treated will be marked with tiny ink dots on your skin. Sometimes a mould will need to be made, which helps hold you in place during the radiotherapy session.

Radiotherapy is usually given in small doses (also known as fractions) each weekday (Monday to Friday) over a few weeks in the radiotherapy department of the hospital. You do not usually have to be admitted to hospital for this treatment, but if you live far away you may need to organise some accommodation for this time. The social worker or nurses can assist you with this.

脫髮

禿頭症(或脫髮)是某些化療藥物種類的常見副作用。這通常是暫時性脫髮，您的頭髮會在您停止化療後開始長回。您全身的毛髮都可能脫落，包括眉毛、睫毛及陰毛。

如果脫髮，您可以採取幾種方法讓自己感覺舒適一些，包括：

- 外出或過夜時，戴上保暖的帽子或毛帽，保持頭部溫暖。
- 白天外出時，戴遮陽帽並塗抹防曬乳，因為化療會讓您的皮膚變得很敏感，容易曬傷。

疲勞

化療後，大多數人都會感到一定程度的疲勞。極度疲勞及疲勞是最常見的症狀之一，可能很痛苦且難以舒緩。疲勞無法透過休息緩解，還會影響您的生理、心理和社交。治療結束之後，此症狀可能有所改善，但有些患者可能會持續數月或數年。

重要的是要吃得好、多喝水，並做一些輕緩的運動保持活動量。與您的護士和醫師討論您的疲勞症狀及應對情況十分重要。



您可從網上獲取更多資訊

放射治療

放射治療利用高能量的X光殺死癌細胞及縮小腫瘤。放射治療一般被視為局部治療，因為它只能摧毀治療部位的癌細胞。

放射區域是接受治療的身體部位。常見的放射區域包括外膜區域(頸部、胸部及腋下)、上腹部(腹部，有時是脾臟)及骨盆區域(臀部和腹股溝)。隨著技術的改進，放射區域通常可個人化設定，以達到最大的治療效果並減少副作用。這被稱為「侵犯區域」或「侵犯部位」放射療法。

放射治療包括哪些內容？

在開始放射治療之前，放療師(對患者進行放射治療的專業醫師)會為您仔細計算放射治療的正確用藥量。您需要治療的身體部位皮膚上將被標出小點。有時需要製作一個模具，幫助固定您在放療過程中的位置。

放射治療通常在每個工作日(週一至週五)以少量用藥進行，治療地點在醫院的放療科，為期數週。進行放射治療通常不需要住院，但是如果您住得比較遠，可能需要安排這段期間內的住宿。社區工作者或護士可協助您安排住宿。

進行放射治療時，您通常會躺在放射治療儀器下的工作台上，治療儀按預先計劃的藥量執行放射治療。重要的組織結構(例如您的心臟和肺臟)必須儘可能遮蔽，以避免受到此治療的影響。放射治療是無痛的一事實上在治療過程中，您看不到也感覺不到任何東西。在治療過程中，您必須在數分鐘內保持靜止不動。您可以自帶音樂，幫助自己放鬆。

When you are having radiotherapy you usually lie on a table underneath the radiotherapy machine, which delivers the planned dose of radiation. Important structures such as your heart and lungs are shielded as much as possible to ensure that they are not affected by the treatment given. Radiotherapy is painless – in fact, you do not see or feel anything during the actual treatment. You will need to stay very still for a few minutes while the treatment is taking place. You might like to bring along some music to help you relax.

Side effects of radiotherapy

Radiotherapy can cause similar side effects to those caused by chemotherapy including nausea and vomiting, hair loss and fatigue. These are described in the previous section on page 40.

Skin reactions

Radiotherapy can cause a reddening of the skin that may also flake and become itchy. The staff at the radiotherapy department will advise you on how to care for your skin while you are having treatment. Gentle washing (avoiding perfumed products like scented soaps) and drying (patting rather than rubbing) is often recommended. You should also avoid any creams or moisturisers that contain traces of metals. Check with the radiotherapy department staff if you are unsure.

It is best to avoid direct sunlight on any area of skin that has received radiotherapy, even after the therapy has finished. This is because radiotherapy makes your skin more vulnerable to the damaging effects of the sun (i.e. sunburn and skin cancers).

Stem Cell Transplant

High doses of chemotherapy and radiotherapy destroy stem cells and your body cannot recover on its own. If you have a stem cell transplant, you are given high-dose chemotherapy followed by stem cells through a drip to replace the ones that were destroyed. The stem cells you are given may come from someone else (a donor) or may be your own stem cells that were frozen before the high-dose chemotherapy.

A stem cell transplant may also be called a bone marrow transplant or a peripheral blood stem cell transplant.

There are two types of stem cell transplant:

- **An autologous transplant** involves collecting your own stem cells, usually from your bloodstream, storing them and then returning them after you have received high doses of chemotherapy.
- **An allogeneic transplant** is where the stem cells are donated by another person, usually a sibling or unrelated matched donor. These donated stem cells replace your immune system with the immune system of the donor.

Having a stem cell transplant is a high-risk treatment option and a lot of things are taken into consideration before it is offered by your haematologist.

放射治療的副作用

放射治療會產生與化療類似的副作用，包括反胃和嘔吐、脫髮及疲勞。這些作用已在第40頁的前一節中說明。

皮膚反應

放射治療會導致皮膚變紅，也可能會脫屑及瘙癢。放療科人員會告訴您在治療期間如何護理您的皮膚。通常會建議您輕柔清洗(避免使用有香味的肥皂等產品)和擦乾身體(輕拍，勿摩擦)。您也須避免採用含金屬成份的乳霜或潤膚液。如有任何不確定之處，請諮詢放療科人員。

最好避免讓放射治療的皮膚部位直接暴露在陽光下，即使治療結束後也應避免。因為放射治療會使您的皮膚更容易遭受日光傷害(例如曬傷及皮膚癌)。

幹細胞移植

高劑量的化療和放療會破壞幹細胞，您的身體無法自行復原。如果您要進行乾細胞移植，您將在高劑量化療之後接受幹細胞滴注，以取代被破壞的乾細胞。您獲得的幹細胞可能來自其他人(捐贈者)，也可能是您自己在高劑量化療之前冷凍的幹細胞。

幹細胞移植也可稱為骨髓移植或週邊血液幹細胞移植。

幹細胞移植可分為兩種：

- **自體移植**將採集您自己的幹細胞(通常從您的血液採集)，儲存起來，然後在您接受高劑量化療之後輸回。
- **異體移植**由其他人捐贈幹細胞，捐贈者通常為親屬或配對成功的非親屬捐贈者。這些捐贈的幹細胞將以捐贈者的免疫系統取代您的免疫系統。

進行幹細胞移植是高風險的治療選項，您的血液科醫師會提供很多考慮因素。

Palliative Care

The palliative care team is made up of doctors, nurses and other health care professionals who specialise in managing symptoms of blood cancers. They aim to improve quality of life through support and services as you face a life-limiting illness. The palliative care team may be involved in providing you with supportive care.

Many people associate the word 'palliative' with end-of-life care. The palliative care team supports all people with blood cancers, including end-of-life care.

Complementary Therapy

Complementary therapies are not considered standard medical treatment, however many people find that they are helpful in coping with their treatment and recovery from disease. There are many different types of complementary therapies. Examples include:

- Yoga
- Exercise
- Meditation
- Prayer
- Acupuncture
- Relaxation
- Massage
- Homeopathy
- Visualisation
- Aromatherapy
- Reiki
- Art therapy
- Music therapy
- Tai chi

Complementary therapies should 'complement' or assist with recommended medical treatment. They are not recommended as an alternative to medical treatment. It is important to realise that no complementary or alternative treatment has been proven to be effective against blood cancers and conditions. It is also important to let your haematologist know if you are using any complementary or alternative therapies in case they interfere with the effectiveness of chemotherapy or other treatments you may be having.

舒緩療護

舒緩療護團隊由專門管理血癌症狀的醫師、護士及其他醫療專業人員組成。他們的目標是在您面臨生命有限的疾病時透過支援及服務改善生活品質。舒緩療護團隊可能為您提供支持性療法。

許多人將「舒緩」一詞與臨終照護連在一起。舒緩療護團隊為所有血癌患者提供支持，包括臨終照護。

輔助治療

一般不將輔助治療視為標準藥物治療，但許多患者覺得輔助治療對他們的治療調適及康復有幫助。輔助治療分為多種。例如：

- 瑜珈
- 運動
- 冥想
- 禱告
- 針灸
- 放鬆
- 按摩
- 順勢療法
- 視覺化
- 芳香療法
- 靈氣療法
- 藝術療法
- 音樂療法
- 太極

輔助治療應「搭配」或協助建議採用的藥物治療。不建議以輔助治療替代藥物治療。切記目前尚未證實任何輔助治療或替代治療可以有效治療血癌及血液疾病。如果您採用任何輔助治療或替代療法，務必告知您的血液科醫師，以免干擾您的化療或其它治療的療效。

MAKING TREATMENT DECISIONS

Many people are overwhelmed when they are diagnosed with a blood cancer or blood condition.

In addition to this, waiting for test results and then having to make decisions about proceeding with the recommended treatment can be very stressful. Some people do not feel that they have enough information to make such decisions, while others feel overwhelmed by the amount of information they are given. It is important that you feel you have enough information about your illness and all of the treatment options available, so that you can make your own decisions about which treatment to have.

Second opinion

You can ask for a second opinion. A second opinion is when you see a different haematologist about your diagnosis and/or treatment. You can ask any member of your health care team, including your current haematologist, about getting a second opinion.

Questions to ask your health care team

Before going to see your haematologist, make a list of the questions you want to ask. It may be useful to keep a notebook or some paper and a pen handy so you can write down questions as they come to mind.

Bring a support person

Sometimes it is hard to remember everything the doctor has said. It may help to bring a family member or friend along who can

write down the answers to your questions or prompt you to ask others, be an extra set of ears or simply be there to support you.

Being in a clinical trial

Your doctor might ask if you would like to take part in a clinical trial (also called research studies). Clinical trials help find out if a new treatment or different ways of giving treatment are better than treatments that are already available.

Taking part in a clinical trial is voluntary, which means that you do not have to take part if you do not want to. If you do not want to be part of a clinical trial, your decision will be respected. You do not have to give any reason why you don't want to be part of the trial and there will be no change in the way you are treated by the hospital or health care team.

Make sure you understand the reasons for the trial and what is involved. You need to give informed consent for a clinical trial. Take time to talk through the trial with your haematologist and other members of the health care team before signing the consent form.



**More information
available online**

選擇治療方案

許多人在確診血癌或血液疾病後會感到茫然失措。

除此之外，等待檢測結果，然後對建議的治療方案作出抉擇，都會讓人備感壓力。有些人會覺得他們在做決策時缺乏充足的資訊，有些人則覺得資訊太多，讓他們無法做出選擇。很重要的是您應該對疾病及所有可選治療方案獲取足夠的資訊，以便能夠自行決定使用哪種治療方法。

第二意見

您可以尋求第二意見。第二意見便是去看另一位血液科醫師，諮詢有關您的診斷及/或治療方案。您可以詢問您的醫療團隊任何一位成員，包括您目前的血液科醫師有關如何取得第二意見。

詢問醫療團隊的問題

看血液科醫師之前，列出您要詢問的問題清單。您可以在身邊備好筆記本或紙筆，想到問題時將它們記下來。

讓支持者陪同看診

有時候，您很難記住醫師說過的所有事項。您可以帶一位家人或朋友陪同看診，他們可以寫下您的問題的答案，或者提醒您詢問其它問題；他們可以幫您聆聽和記下看診內容，或在旁給予您支持。

參與臨床試驗

您的醫生可能會問您是否要參加臨床試驗(也稱為試驗性研究)。臨床試驗有助於發現新療法或其他治療方式是否比現有療法更好。

臨床試驗的參與屬自願性質，若您不想參加也無妨。如果您不想參加臨床試驗，您的決定將獲得尊重。您無需提供不想參與試驗的原因，醫院或醫療團隊對您的治療方式也不會有所更動。

確保您了解試驗的原因以及涉及的內容。您需要提出臨床試驗的知情同意。在簽署同意書之前，請花些時間與您的血液科醫師和醫療團隊的其他成員討論該試驗。



您可從網上獲取更多資訊

RELATIONSHIPS

A diagnosis of a blood cancer can have a positive and negative impact on relationships with family and friends.

Good communication is essential to supporting your relationships with your partner, children or friends.

Talking to your children

Helping children understand your diagnosis and how this will affect them can help them to cope with the changes and challenges.

Counselling or psychological support is available if you are concerned about how your child or children are coping. Ask your health care team or LBC Support Services Coordinator for more information.

For preschool or school-age children, it is a good idea to speak with their teachers and let them know about your diagnosis and how this is affecting family routines and relationships.



More information available online

Sexual relationships

You cannot give cancer to another person when you have sex with them.

People who have a blood cancer diagnosis and treatment can experience changes in their sex life. The reasons for this include:

- Extreme tiredness (fatigue)
- Side effects of treatment, e.g. nausea
- Changes in mood, e.g. anxiety

- Changes to your body image due to hair loss, weight change
- Changes to your libido
- Vaginal dryness or difficulty getting an erection

After your treatment, your sex life should start to return to how it was before your diagnosis.

It is important to talk to your partner about sex and how your diagnosis and treatment are making you feel. If you are having problems with sex and it is affecting your relationship, or you are worried about starting a new relationship, speak with someone in your health care team. They can give you more information or refer you to someone who can help.

Contraception

If you are having treatment for a blood cancer, you should always use a condom when having sex.

Even if you are beyond child-bearing age or no longer need birth control, it is still important to use a condom. The two main reasons for this are:

1. To protect yourself from getting an infection. Your low white blood cell count puts you at a higher risk of infection.
2. To protect your sexual partner while you are having chemotherapy. Chemotherapy drugs are secreted (come out) from your body via your urine, your bowel motions and other body secretions such

關係

血癌確診對您與家人及朋友的關係可能有利，但也可能有所損害。

良好的溝通對於支持您與伴侶、孩子或朋友的關係極其重要。

與你的孩子溝通

幫助孩子了解您的診斷結果及其對他們的影響，可幫助他們應付即將面對的變化與挑戰。

如果您憂心自己的孩子無法應對，您可以尋求輔導或心理支援。向您的醫療團隊或LBC支援服務協調員詢問更多資訊。

對於學齡前或學齡兒童，您可以與他們的老師談談，讓他們知道您的診斷結果，及其對您家庭的生活作息和人際關係的影響。



您可從網上獲取更多資訊

性關係

與他人進行性行為，並不會將所患的癌症傳染給對方。

確診血癌及接受治療的患者，在性生活方面可能經歷一些變化。其原因包括：

- 極度疲累(疲勞)
- 治療的副作用，例如反胃
- 情緒變化，例如焦慮
- 脫髮、體重變化使您的身體形象發生變化
- 性慾變化
- 陰道乾燥或勃起困難

治療結束之後，您的性生活應該便會恢復診斷前的狀態。

您應該與性伴侶談論有關您對於性生活以及您的診斷與治療的感受，這很重要。如果您在性方面遭遇問題，而且影響您的關係，或者您對於開始新的關係感到擔憂，您可以和醫療團隊的成員談談。他們可提供您更多資訊，或推薦其他可幫助您的人。

避孕

如果您正在接受血癌治療，性交時應使用保險套。

即使您已超過生育年齡或不再需要節育，使用保險套仍然很重要。兩個主要原因是：

1. 為了保護自己免受感染。白血球計數低會提高您受感染的風險。
2. 為了在您進行化療期間保護您的性伴侶。化療藥物會通過尿液、排便及其他身體分泌物(例如精子和陰道分泌物)從您體內分泌出來。少量化療藥物便有可能刺激您性伴侶的皮膚(皮疹或瘙癢)。

如果您在接受血癌治療期間從事性行為，對未出生的胎兒造成損傷的風險較高，因此採取適當的避孕方法極其重要。

as sperm and vaginal secretions. The small amounts of chemotherapy can cause irritation (a rash or itching) to your partner's skin.

If you are having sex and also receiving treatment for a blood cancer then there is a high risk of damage to an unborn child, so the appropriate contraception is essential.

Sex when you have a low platelet count

Speak with your doctor or nurse about sex if your platelet count is low as you may need to be careful due to the risk of bleeding. It is often a good idea for women to use a lubricating jelly ('lube') such as KY Jelly.

KEEPING IN GOOD HEALTH AFTER YOUR DIAGNOSIS

After a diagnosis of a blood cancer, it is important to look after your health. When you feel well enough, regular exercise and eating healthy food are very important.

So that you do not have complications from your treatment or long-term side effects, the following health changes should be made immediately:

- Stop smoking
- Protect your skin from the sun
- Stop drinking alcohol (or cut down)

Ask your doctor or nurse about support to help you stop smoking and to reduce or stop drinking alcohol.

Your health care team can advise you on how to keep well. The physiotherapist can advise you about the exercise that is right for you. The dietitian can advise you about eating well, especially if your treatment is making you feel sick or you have taste changes.

Contact your LBC Support Services Coordinator if you would like more information about exercise options in your area.

血小板計數低時的性行為

如果您的血小板計數過低，請與醫師或護士諮詢您的性生活情況，因為您可能需要注意有關出血的危險。對女性來說，建議可使用潤滑凝膠（潤滑液）（例如KY潤滑劑）。

確診後保持健康

診斷患有血癌之後，照顧好您自己的健康至關重要。當您感覺身體比較好時，定期運動及攝取健康食物非常重要。

為了避免您的治療出現併發症或長期副作用，應立即採取以下健康方面的改變：

- 停止吸煙
- 避開陽光照射，保護皮膚
- 停止飲酒（或少喝酒）

向您的醫師或護士諮詢有關幫助您戒菸及減少或停止飲酒的支援資源。

您的醫療團隊可提供您有關如何保持健康的建議。理療師可向您建議適合您的運動。營養師可為您提供飲食建議，特別當您的治療令您感到噁心反胃或出現味覺變化時。

若您想詳細瞭解有關您所在地區的運動選項，請聯絡您的LBC支援服務協調員。

THE FUTURE

A diagnosis of a blood cancer can affect many areas of your life such as work or school, your emotions, relationships and finances.

For some people, a diagnosis of a blood cancer can mark a turning point in their life. For other people a diagnosis means they feel their life has been put 'on hold'. The length of time it may take to recover emotionally and physically from a diagnosis or treatment is different for everyone.

Getting back to your previous routine of work, school or childcare, for example, may be a goal or may not be what you want anymore. You may need to make a few adjustments to your life.

Once your treatment has finished, you will have regular check-ups with your haematologist and health care team. You will also be encouraged to go back to see your general practitioner (GP). Your health care team will send regular letters to your GP

to tell them about your progress and what needs to be followed up, e.g. blood tests and vaccinations. If your GP has any questions, they are able to contact your haematologist for advice.

Your health care team and LBC Support Services Coordinator can help you manage:

- Day-to-day practical problems including work, travel and travel insurance.
- Relationships and communication with family, friends and colleagues.
- Emotional effects from your disease and treatment, including fear of relapse and feeling uncertain about the future.

There is a lot of support available to help you and your family cope.

未來

確診患上血癌會對影響您生活中的許多方面，例如工作或學校、您的情緒、人際關係和財務狀況。

確診血癌可能是某些患者人生的轉折點。對其他患者來說，這個診斷結果意味著他們的生活已經「按下暫停鍵」。每個患者從診斷結果或治療中恢復正常的情緒及生理狀態所需要的時間各不相同。

例如返回之前的工作崗位、學校或育兒生活可能是一個目標，也可能不再是您心中所想。您的生活可能需要一些調整。

治療結束之後，您將需要接受血液科醫師和醫療團隊的定期檢查。我們也鼓勵您回去看您的全科醫師(GP)。您的醫療團隊將會定期向您的全科醫師發送信件，告知您的病情進展以及需

要繼續追蹤的事項，例如血液檢驗和疫苗接種。如果您的全科醫師有任何疑問，他們可以聯絡您的血液科醫師尋求建議。

您的醫療團隊和LBC支援服務協調員可協助您管理：

- 日常生活中的實際問題，包括工作、旅遊及旅遊保險。
- 與家人、朋友和同事之間的關係與溝通。
- 您的疾病和治療產生的情感影響，包括對復發的擔憂以及對未來的不確定感。

許多支援服務都可協助您和您的家人應對此病症。

ACKNOWLEDGEMENTS

Leukaemia & Blood Cancer (LBC) New Zealand would like to thank everybody who has helped in the development of this booklet: those who have experienced a blood cancer, their personal supporters, health care team members and LBC staff.

Leukaemia & Blood Cancer New Zealand

Leukaemia & Blood Cancer New Zealand (LBC) is the leading organisation in New Zealand dedicated to supporting patients and their families living with leukaemia, lymphoma, myeloma and related blood conditions.

Since 1977, our work has been made possible through our fundraising events and the generous support we receive from individuals, companies, trusts and grants. We do not receive government funding.

LBC is committed to improving the quality of life for patients and their families living with these blood cancers and conditions by providing patient support services, investing and supporting research, providing information, raising awareness and advocating on behalf of patients and their families.

致謝

紐西蘭白血病與血癌基金會(LBC)在此感謝所有為本手冊編寫工作提供協助的人士：經歷過血癌的患者、其個人支持者、醫療團隊成員及LBC的工作人員。

紐西蘭白血病與血癌基金會

紐西蘭白血病與血癌基金會(LBC)是紐西蘭支持白血病、淋巴瘤、骨髓瘤及相關血液疾病患者與家屬的最大專門機構。

自1977年以來，我們持續透過募捐活動以及個人、企業、信託基金與捐贈等各界的慷慨資助推動和展開工作。我們並無接受政府資助。

LBC致力透過提供患者支援服務、投資及支持研究、提供資訊、提高認知以及為患者及其家人倡議，改善這些血癌和血液疾病患者及其家人的生活品質。

HAEMATOLOGY CENTRES IN NZ

Centre	Address	Phone
Whangarei Hospital	Hospital Road, Whangarei	(09) 430 4100
North Shore Hospital	Shakespeare Road, Takapuna, Auckland	(09) 486 8900
Auckland City Hospital	Park Road, Grafton, Auckland	(09) 367 0000
Starship Hospital	Park Road, Grafton, Auckland	(09) 367 0000
Middlemore Hospital	Hospital Road, Otahuhu, Auckland	(09) 276 0044
Waikato Hospital	Pembroke Street, Hamilton	(07) 839 8899
Thames Hospital	Mackay Street, Thames	(07) 868 0040
Tauranga Hospital	Cameron Road, Tauranga	(07) 579 8000
Rotorua Hospital	Pukeroa Street, Rotorua	(07) 348 1199
Hastings Hospital	Omahu Road, Hastings	(06) 878 8109
Whakatane Hospital	Stewart Street, Whakatane	(07) 306 0999
Palmerston North Hospital	Ruahine Street, Palmerston North	(06) 356 9169
Wellington Hospital	Riddiford Street, Newtown, Wellington	(04) 385 5999
Nelson Hospital	Tipahi Street, Nelson	(03) 546 1800
Christchurch Hospital	Riccarton Avenue, Christchurch	(03) 364 0640
Dunedin Hospital	Great King Street, Dunedin	(03) 474 0999
Invercargill Hospital	Kew Road, Invercargill	(03) 218 1949

紐西蘭的血液科中心

中心	地址	電話
Whangarei Hospital	Hospital Road, Whangarei	(09) 430 4100
North Shore Hospital	Shakespeare Road, Takapuna, Auckland	(09) 486 8900
Auckland City Hospital	Park Road, Grafton, Auckland	(09) 367 0000
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Invercargill Hospital	Kew Road, Invercargill	(03) 218 1949

Contacting us

Leukaemia & Blood Cancer New Zealand provides services and support throughout New Zealand. Every person's experience of living with a blood cancer or condition is different. Living with leukaemia, lymphoma, myeloma or a related blood condition is not easy, and our Support Services Coordinators are here to help.

Freephone 0800 15 10 15

Telephone 09 638 3556

Facsimile 09 638 3557

Email info@leukaemia.org.nz

National Office

6 Claude Road, Epsom 1023
PO Box 99182, Newmarket 1149
Auckland, New Zealand

聯絡我們

紐西蘭白血病與血癌基金會在紐西蘭全國提供服務與支持。每個人與血癌或血液疾病抗爭的經歷各不相同。患上白血病、淋巴瘤、骨髓瘤或相關血液疾病時，生活會很艱難，我們的支援服務協調員很樂意協助您。

免費電話 0800 15 10 15

電話 09 638 3556

傳真 09 638 3557

電子郵件 info@leukaemia.org.nz

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Vision to Cure. Mission to Care.