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7th Edition

# MULTIPLE MYELOMA

A TREATMENT GUIDE FOR PATIENTS AND THEIR FAMILIES

*Let knowledge  
and hope  
guide you*

  
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# MULTIPLE MYELOMA



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# Understanding your diagnosis helps you move forward confidently

**M**ultiple myeloma is a type of blood (hematologic) cancer that you may not have heard of before your diagnosis. To better understand it and make informed treatment decisions, it is important to learn as much as you can. As you do your research, you will find that doctors are learning more about the genetics behind the disease, finding new ways to treat it and developing better ways to address side effects. Even though it is typically managed as a chronic condition, there is hope for a cure.

## MULTIPLE MYELOMA BASICS

Sometimes referred to as a plasma cell neoplasm, multiple myeloma begins when the blood's plasma cells multiply uncontrollably. Plasma cells are produced in the bone marrow. They make different types of antibodies to help fight germs and viruses, and stop infection and disease. Antibodies are proteins created as a reaction to foreign substances, such as bacteria, in the body. As a type of white blood cell, plasma cells are an important part of the immune system, a network of cells that work together to defend your body against infections.

In multiple myeloma, abnormal plasma cells are created that grow out of control (see Figure 1). These plasma cells prevent healthy plasma cells from producing antibodies, which weakens the immune system and affects the body's ability to fight infection. These abnormal, cancerous plasma cells are called myeloma cells, and, like normal plasma cells, myeloma cells also make antibodies. But these myeloma cells produce too much of the same antibody called the M-protein, which does not fight infection.

The myeloma cells can accumulate in blood and urine and eventually can damage the kidneys or other organs. They can also overcrowd the bone marrow, which suppresses the growth of healthy cells that produce blood. This unusual cell growth can result in anemia, bone damage and excessive bleeding from cuts. This accumulation of myeloma cells usually occurs

in multiple areas of bone in the body, giving the disease its name, "multiple myeloma."

When myeloma cells collect in bone marrow, they slow down the growth of healthy white blood cells, red blood cells and platelets. These cells collect in solid bone, causing holes called lytic lesions. The majority of people with multiple myeloma have these lesions when their disease is diagnosed.

## MORE ABOUT DIAGNOSIS

People with multiple myeloma may or may not have symptoms, which can make it difficult to recognize. As a result, the disease may be at an advanced stage when it is diagnosed.

If your doctor suspects you have multiple myeloma, you may have blood and urine tests as well as a bone marrow biopsy and imaging tests, which may include magnetic resonance imaging (MRI) and positron emission tomography combined with computed

tomography (PET/CT) and X-rays. Molecular testing may be performed to check for chromosome abnormalities.

Additionally, your doctor may order a biopsy of fat from around your stomach to check for amyloidosis, which is a buildup of amyloid, an abnormal protein. Amyloidosis may be either primary (with no known cause), secondary (caused by multiple myeloma) or hereditary (passed down from parents to children). Differentiating between amyloidosis and multiple myeloma may be part of the diagnostic process.

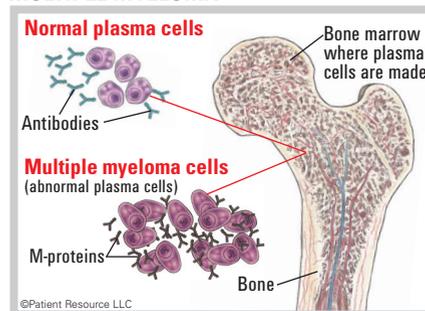
The only two known precursors to multiple myeloma are monoclonal gammopathy of undetermined significance (MGUS) and smoldering myeloma. MGUS occurs when abnormal plasma cells produce too many copies of an identical antibody. Most cases of multiple myeloma are preceded by MGUS, but it is unknown whether MGUS is always present before diagnosis.

Smoldering myeloma, also called asymptomatic multiple myeloma, is an early stage of myeloma. Preventive treatments to delay smoldering myeloma from progressing to multiple myeloma are being studied in clinical trials.

Although the exact cause of multiple myeloma is unknown, scientists continue to learn more about the development of the disease. Treatments continue to improve as newer therapies are introduced, new drug combinations are being developed and new types of immunotherapy, such as bispecific T-cell engagers (BiTEs), are being approved. All of these advances have led to many patients living healthy, active lives while having multiple myeloma. Research is ongoing and more treatments are expected in the future.

This guide explores available treatment options and side effect management along with addressing the challenges that come with living with a chronic disease. ■

FIGURE 1  
MULTIPLE MYELOMA



## CRAB: THE COMMON SIGNS OF MULTIPLE MYELOMA

➔ The most common signs of multiple myeloma, which are attributed to the same factors used to stage multiple myeloma, can be described with the CRAB acronym:

**C** **CALCIUM LEVEL**  
Elevated calcium levels in the blood

**R** **RENAL (KIDNEY) FUNCTION**  
Kidney damage or failure resulting from the multiple myeloma protein

**A** **ANEMIA**  
Low red blood cell counts caused by cancer cells slowing the growth of healthy bone marrow cells

**B** **BONE LESIONS**  
Bone damage (lytic lesions), thinning of the bones (osteoporosis) or a compression fracture of the spine

# Staging sets the course for personalized treatment

**D**octors rely on many tests to diagnose and stage multiple myeloma, including a thorough physical exam, imaging studies, blood and urine tests, bone marrow biopsy and molecular testing. Staging provides your doctor with essential information to understand the extent of the myeloma, determine the best treatment options for you and predict the prognosis (outcome).

Staging multiple myeloma can be complex and may seem confusing. Learn all you can about your diagnosis, including your type and stage of multiple myeloma and what your test results and any genetic findings mean. Pay particular attention to molecular testing, which is performed on the tumor or a bone marrow sample to look for specific chromosomes, genes, proteins and other factors that help your doctor understand how the disease may behave.

Ask your doctor or nurse to explain anything that is unclear to you.

## COMMONLY USED STAGING SYSTEMS

The staging systems for multiple myeloma are the Revised International Staging System (RISS), which is commonly used (see Table 1), and the Durie-Salmon Staging System (see Table 2). Both have three stages, though they do not mean the same thing.

Some of the molecular tests that may be performed for staging include the following:

- Cytogenetics evaluates cells for chromosome abnormalities by looking for genetic changes at the DNA level. Abnormalities, such as chromosomes that are broken, rearranged or missing, may indicate the level of disease. Cytogenetic analysis may help your doctor determine the treatment plan most likely to be effective for you.
- Fluorescence in situ hybridization (FISH) detects abnormal cells that may be associated with a more advanced myeloma. During the test, fluorescent dye is used to

highlight genes or areas of chromosomes under a microscope to look for abnormalities that may be associated with more advanced or aggressive myeloma.

- Measurable/minimum residual disease (MRD) testing is used to determine the number of cancer cells that are usually present in bone marrow. “MRD positive” means disease is still detected. “MRD negative” means no disease is detected.

## Revised International Staging System (RISS)

The RISS uses the following factors to assign one of three stages:

- **Albumin level.** Albumin is made in the liver, and the blood albumin level can help your doctor determine how well your liver and kidneys function. Low levels may signal a more advanced myeloma.
- **Beta-2-microglobulin level.** This is made by malignant myeloma cells. The level in the blood increases as myeloma progresses, so high levels may mean that the cancer is more advanced.
- **Lactate dehydrogenase (LDH) level.** LDH helps cells convert sugar to energy. High levels of LDH in the blood may indicate a more advanced myeloma.
- **Genetic abnormalities.** Biomarker testing of the tumor is performed to look for abnormalities and changes in chromosomes, genes, proteins and other factors unique to the tumor. The types of testing used include cytogenetics, fluorescence in

situ hybridization (FISH) and measurable/minimum residual disease (MRD) testing.

## Durie-Salmon Staging System

The Durie-Salmon Staging System uses blood, urine and imaging test results to measure the amount of abnormal plasma cells present and to determine tumor size and/or extent of cancer in the body. Four main factors are considered:

1. **M-protein.** Large amounts of this abnormal protein in the blood or urine may indicate that a high number of malignant plasma cells are present.
2. **Calcium.** A high calcium level in the blood (hypercalcemia) may mean that multiple myeloma has caused substantial bone damage.
3. **Hemoglobin.** This essential protein is found in red blood cells, and the level indicates the number of red blood cells. Healthy blood cells are crowded out by multiple myeloma cells in the bone marrow, so a low hemoglobin level (anemia) may mean a high level of multiple myeloma cells.
4. **Bone damage.** Imaging tests are used to identify the location and severity of bone damage in the body. Multiple sites may indicate advanced multiple myeloma.

Stage I indicates the smallest amount of tumor cells present, and Stage III represents the largest amount. Once the stage is determined, it is subcategorized to signify the level of kidney damage: “A” indicates little or no change in function, and “B” indicates significant kidney damage.

Sometimes your doctor will reassess your stage after treatment or if cancer recurs. This is known as restaging. If it is necessary, it typically involves the same diagnostic tests used for the original staging. ■

TABLE 1  
REVISED INTERNATIONAL STAGING SYSTEM (RISS)

Stage	Description
Stage I	Serum beta-2-microglobulin, less than 3.5 mg/L and serum albumin, 3.5 g/dL or more and no high-risk cytogenetics* and normal LDH.
Stage II	Not Stage I nor Stage III.
Stage III	Serum beta-2-microglobulin, 5.5 mg/L or more and high-risk cytogenetics or high LDH.

\*Cytogenetics is the field of study that analyzes the number and structure of human chromosomes. Researchers have identified certain high-risk cytogenetics that may be present in some people with multiple myeloma.

Used with permission of the American Joint Committee on Cancer (AJCC), Chicago, Illinois. The original and primary source for this information is the AJCC Cancer Staging Manual, Eighth Edition (2017) published by Springer Science+Business Media.

TABLE 2  
DURIE-SALMON STAGING SYSTEM

Stage	Description
Stage I	Hemoglobin levels are slightly below normal (but above 10 grams per deciliter of blood). Calcium levels are in the normal range (12 milligrams per deciliter of blood or less). M-protein levels are relatively low (less than 5 grams per deciliter for IgG; less than 3 grams per deciliter for IgA; less than 4 grams per 24-hour for urinary light chain). Bone X-rays are normal or show only one area of bone damage.
Stage II	Neither Stage I nor Stage III.
Stage III	Hemoglobin levels are very low (less than 8.5 grams per deciliter of blood). Calcium levels are high (more than 12 milligrams per deciliter of blood). M-protein levels are high (more than 7 grams per deciliter for IgG; more than 5 grams per deciliter for IgA; more than 12 grams per 24-hour for urinary light chain). Bone X-rays show at least three areas of bone damage.

These letters may be added to the Durie-Salmon stage to indicate additional factors:  
A: Mostly normal kidney function. B: Abnormal kidney function.

**John Pumphrey, 55, credits a skilled and compassionate medical team, his strong faith and an unexpected support system with helping him move from a multiple myeloma diagnosis to remission in just under a year.**

## Rekindled friendships and faith offer support



➔ **Feeling a little run down didn't concern me.** I chalked it up to being a single dad of two teenage boys, working long hours and the stress of being in a pandemic. I didn't feel sick and I was in pretty good shape, which is what made a multiple myeloma diagnosis at 54 so shocking.

At my annual physical, my doctor noticed my blood pressure was higher than normal and my kidney function was a little off. He controlled my blood pressure with new meds, and he referred me to a kidney specialist. Surprisingly, results of those tests showed I was in Stage III kidney failure.

That really took me off guard. I wasn't having any symptoms. How could I be in kidney failure?

The specialist ran more tests to look for conditions that could be causing it, including multiple myeloma — something I'd never heard of. Because that's what the results pointed to, he referred me to an oncologist who ran more tests, including a bone marrow biopsy. That's how I learned I had multiple myeloma.

The oncologist talked with me about possible treatments. We decided on a plan that included drug therapy and an autologous stem cell transplant. He expected my kidney issues to resolve as we treated the multiple myeloma.

I started an oral chemotherapy and a subcutaneous targeted therapy, then prepared for the stem cell transplant. It took about six hours to harvest my stem cells and daily trips to the hospital for a week for injections to get my body ready.

Physically, I felt ready, but I didn't expect to have much support. I'm the sole provider for my boys. My parents are in their upper 80s and live four hours away. We'd recently downsized and moved to a new neighborhood so we didn't have close friends nearby. My faith is strong and I prayed, but because of COVID I attended church online.

Needing support and prayers, I shared my diagnosis on Facebook. The outpouring of love was one of the biggest blessings. Friends from all over reached out. I've renewed many friendships, some as far back as grade school. And, I'm on numerous prayer lists. It truly gave me the boost I needed.

With the support and help of my ex-wife, I checked in to the hospital for the heavy chemotherapy and transplant.

For the next couple of weeks, I did nothing but rest up in the hospital. When my levels were safe enough for me to go out into the world, I was allowed to ring the bell and go home.

Ring the bell was emotional, as was coming home to the boys. Because of COVID, I had only seen them through FaceTime. My parents stayed with them while I was in the hospital and didn't leave until I'd regained my strength.

For the next 100 days, I was completely off treatment. My job was to get much-needed rest because the transplant wiped me out.

Once again, I had unexpected support. Our former neighbors really stepped up by sending meals weekly to make sure the boys and I had food along with gift cards for the grocery store, Subway, etc. The boys could run out and grab food whenever they wanted it without relying on me.

I was able to work remotely most of the time, but when I had to take time off for the transplant, my boss and team members covered for me.

At 100 days, my post-transplant test results showed my M-spike was improved. It was a partial response but not what we hoped for. It was, however, moving in the right direction. My oncologist encouraged me not to be disappointed.

I started chemotherapy (this time with a port) and targeted therapy along with a bone-strengthening drug and had regularly scheduled follow-ups to check my M-spike level.

At my last checkup, my oncologist told me I am as close as I can get to full remission. I'm moving to a lower dose of a maintenance medication, and my follow-ups can be further apart.

I lucked out with my doctor and nurses. They are incredible and make a horrible situation bearable — even a little enjoyable.

Being in good shape at diagnosis helped me to recover physically, and that is incentive to treat my body well. During recovery, my muscles really atrophied. I'm slowly building back muscle — walking to the mailbox, then halfway down the street. I'm looking forward to being able to hike, kayak and play golf again.

I try to live one day at a time and not think about a recurrence. My doctor assures me things are really happening for multiple myeloma treatment. There's even potential for a cure, so my plan is to continue to manage it the best we can. ■

### John's Advice

**You'll have good and bad days. Enjoy the good days, and remember:**

- ➔ Make the day you're in the best day you can.
- ➔ Find faith somehow, some way.
- ➔ Tell your story to others. More than once when I've felt down or lonely, I received a message from an old friend and it lifted me instantly.

# Partner with your doctor for a personalized plan

**S**ignificant progress has been made in recent years in understanding multiple myeloma. In addition, new classes of drugs, new drug strategies and combination therapies have changed how doctors approach treating this disease. As a result, more options are available, offering patients hope for living longer.

Because diagnosing and treating multiple myeloma can be challenging, you may want to seek a second opinion or advice from a hematologist or doctors who specialize in treating multiple myeloma. This can happen either before or after diagnosis and even after you begin treatment. Some doctors may favor one treatment approach, while others might suggest a different combination of treatments. There is often collective wisdom gained from the experience and opinions of different oncology specialists who are experts in your type of cancer. A second opinion is also a way to make sure your pathology diagnosis and staging are accurate and that you are aware of clinical trials to consider. You need to learn about all your treatment options.

After your diagnosis is confirmed, you will work with a multidisciplinary team that includes a variety of health care professionals who will be involved in your care.

## DEVELOPING YOUR PLAN

Reaching remission is the goal of treating multiple myeloma. Remission means no longer having any signs or symptoms of the disease.

Your treatment plan will be based on many factors: whether you are newly diagnosed or are experiencing a recurrence; the presence of symptoms; your overall health; the aggressiveness of the myeloma; and your goals of treatment, which often include reaching remission by eliminating myeloma cells, controlling tumor growth and pain, and improving your quality of life.

For patients with symptoms, a treatment plan may include different phases:

- **Induction therapy** is designed to control the myeloma and relieve symptoms. It may also be referred to as your primary therapy.
- **Consolidation** uses more chemotherapy or a bone marrow/stem cell transplant. It can be used for a few cycles after the first therapy and before maintenance therapy with the goal of deepening the response to the induction phase.

- **Maintenance therapy** is given to prevent cancer recurrence over a prolonged period of time. It may include one or more drugs that are typically oral therapies.

Be aware that it is common for the treatment strategy you begin with to change. Your doctor will continually monitor your condition and make adjustments for a number of reasons. Sometimes a therapy becomes less effective as time goes on; other times, a new mutation may be discovered and a different therapy may offer more promise; or you may reach remission, among other things. Keep in mind that cancer is a fluid condition that presents many challenges, so flexibility and patience are important.

## TREATMENT OPTIONS

Based on the stage of the disease and your age, overall health, symptoms, previous treatments and preferences for quality of life, one or more of the following therapies may be recommended.

**Watchful waiting** may be recommended for people with monoclonal gammopathy of undetermined significance (MGUS) or smoldering myeloma (both precursors to multiple myeloma), early-stage disease and when symptoms are not present. It offers the possibility of avoiding the side effects of treatment as long as possible and, hopefully, without affecting the outcome. Keep regular checkups because treatment should begin as soon as the disease progresses or symptoms appear.

**Drug therapies** are commonly used to treat multiple myeloma. These therapies are known as systemic because they travel throughout the body. They may be delivered orally, intravenously and subcutaneously (beneath the skin) (see Figures 1 and 2). Drug therapies include chemotherapy, immunotherapy, targeted therapy, corticosteroids and bone-modifying drugs.

*Chemotherapy* is commonly used for multiple myeloma, and most people receive some form of it. It uses drugs to destroy cancer cells by preventing them from growing and dividing. It may consist of a single drug or multiple drugs given in combination. It may also be combined with other types of treatment. Some oral chemotherapy drugs may be taken at home. Intravenous (IV) drugs are given in a doctor's office, clinic or hospital. When given as supportive care, chemotherapy may also be used to reduce back pain caused by osteoporosis or compression fractures of the spine.



## Educate yourself about relapsed and refractory multiple myeloma

➔ The primary goal of treating multiple myeloma is to reach remission. Complete remission is reached when cancer can no longer be found after multiple tests. Even with complete remission, small numbers of cancer cells may still be in the body. A partial remission occurs when some but not all signs and symptoms have decreased or disappeared.

It is common to hear doctors refer to multiple myeloma that has come back after treatment as relapsed. A relapse can happen weeks, months or even years after initial treatment has ended. Treatments often reduce the amount of myeloma cells, but some can remain undetected and continue to grow.

Keeping follow-up appointments is important because finding a recurrence early is key to successful treatment. At your follow-up appointments, your doctor will ask questions about any ongoing symptoms you may be having, especially those related to recurrence and long-term side effects of treatment.

Refractory myeloma is multiple myeloma that stops responding to treatment. The disease may not respond to initial therapy or may stop responding after treatment has been underway for a length of time. If this happens, your doctor may request additional tests that could be used to restage your multiple myeloma. If a new stage is assigned, it will likely change your treatment options. This is also a good time to consider getting a second opinion.

Resistance to some drug therapy and genetic abnormalities in myeloma cells are two common causes of refractory myeloma. A treatment plan for refractory myeloma may use a combination of therapies, which is designed to prevent or slow the development of drug resistance.

Another option may be a clinical trial. Research is ongoing to find new treatment combinations that are effective. Recent advances in research have resulted in improved treatment regimens for people with refractory or relapsed multiple myeloma. Ask your doctor if you may be a candidate for a clinical trial.

Corticosteroids are myeloma cell-fighting drugs that may ease chemotherapy side effects, particularly nausea and vomiting. They can be used alone or in combination with chemotherapy. Corticosteroids also help reduce inflammation and may offer other benefits.

Immunotherapy is drug therapy that works with your immune system to help identify and then destroy multiple myeloma cells. It may be given by IV or subcutaneously (by injection under the skin). The following types of immunotherapy are approved.

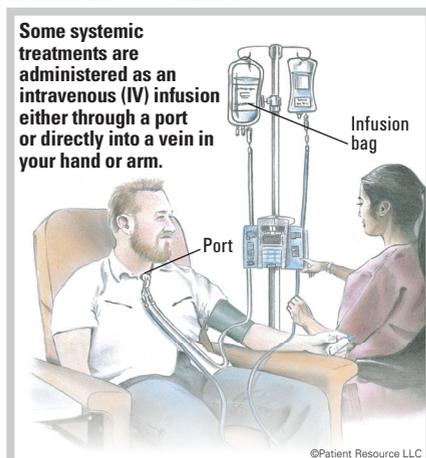
- Monoclonal antibodies (mAbs) are made to target specific antigens — in this case, ones found on myeloma cells. The mAbs can be made to recognize and attach to proteins and other substances on multiple myeloma and other cells or deliver other therapeutic agents to slow their growth and/or kill them. They might also enable your immune system to learn to identify and destroy multiple myeloma cells.
- Chimeric antigen receptor (CAR) T-cell therapy involves taking a patient’s T-cells and modifying them to recognize and kill multiple myeloma cells (see Figure 4, page 6).

A combination of immunotherapy drugs may also be used to treat amyloidosis.

Targeted therapy drugs are used to slow or stop the progression of disease. These drugs may be given orally, subcutaneously or by IV. They travel throughout the body via the bloodstream looking for specific proteins and tissue environments of myeloma cells.

Targeted therapy may also be given as supportive care to decrease the amount of im-

▲ FIGURE 1  
INTRAVENOUS THERAPY



## Treatment Terminology

► Treatments are often referred to in the order they are typically given. First-line therapy is the first therapy given. It is often the standard of care for the diagnosis, which is the treatment most commonly used. Second-line therapy is given when the first-line therapy doesn’t work or stops being effective. It is common for multiple myeloma patients to have third- and fourth-line therapies when the disease comes back or a treatment stops working.

munoglobulin M, a type of antibody, and to treat amyloidosis. Targeted therapy with a monoclonal antibody may also be given to slow bone loss and reduce bone pain.

The following drugs may be used alone or in combination with corticosteroids, immunomodulators and other therapies:

- Angiogenesis inhibitors block new blood vessel growth that feeds myeloma cells.
- Histone deacetylase (HDAC) inhibitors affect gene expression inside myeloma cells.
- Immunomodulators may stimulate or slow down the immune system in indirect ways. They may boost the immune system and the effects of other therapies on the myeloma cells. They may be effective in treating newly-diagnosed multiple myeloma and relapsed or refractory disease.
- Monoclonal antibodies (mAbs) are commonly used. Laboratory-made mAbs attach to specific proteins and attack myeloma cells.
- Proteasome inhibitors target enzymes to slow or stop myeloma cell growth and development.
- Selective inhibitors of nuclear export (SINE) enhance the anticancer activity of certain proteins in a cell.

Bone-modifying (strengthening) drugs can treat bone problems caused by multiple

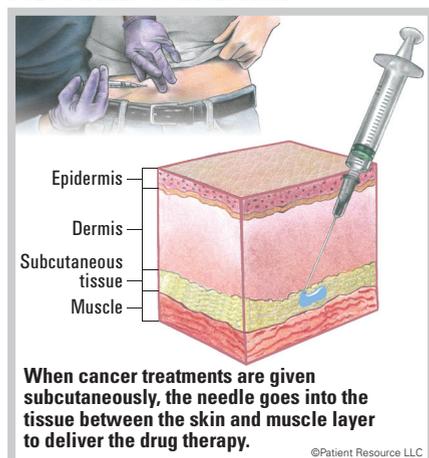
myeloma as well as prevent further bone damage from occurring. Myeloma cells in the bone marrow can lead to bone lesions and the destruction of bone. Contact your doctor as soon as you begin to feel any pain.

**Stem cell transplantation** may be recommended (see *Stem Cell Transplantation*, page 7). An autologous (auto) transplant uses the patient’s own stem cells, which are collected, filtered, processed and frozen. High-dose chemotherapy and sometimes full-body radiation therapy (conditioning) are given to destroy cancer cells. Then the reserved stem cells are thawed and infused back into the patient’s body. This therapy may also be used to treat amyloidosis. Another option that may be used is an allogeneic (allo) transplant.

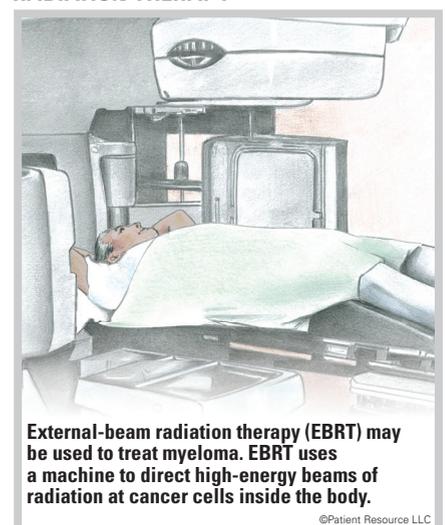
**Radiation therapy** may be used for localized myeloma or bone pain that does not lessen with chemotherapy (see Figure 3).

**Surgery** may be used to treat a plasmacytoma (malignant plasma cell tumor) but is rarely a treatment option. In cases of weakened bone, metal plates or rods may be placed to provide support or to prevent fractures.

▲ FIGURE 2  
SUBCUTANEOUS INJECTION



▲ FIGURE 3  
RADIATION THERAPY



**Plasmapheresis** uses a machine to filter plasma out of the blood. Though not a treatment for multiple myeloma, it may be used if large amounts of M-protein make the blood thick.

**Clinical trials** are medical research studies that may offer access to therapies not yet widely available. Most cancer treatments used today were once developed, tested and evaluated through the clinical trials process to gain approval from the U.S. Food and Drug Administration (FDA).

Multiple myeloma is an active area of research with many trials underway, such as those involving bispecific T-cell engagers (BiTEs), which enable a cancer-fighting T-cell to bind to and kill cancer cells. Other areas of research include testing new combinations of currently approved drug therapies; investigating a new type of CAR using natural killer (NK) cells as well as other CAR T-cell therapies; integrating other myeloma therapies for treating relapsed and refractory patients; finding better ways of detecting, monitoring and treating side effects; and developing a next-generation immunomodulator.

Volunteering for a trial may be your best option if your cancer has become resistant to your current treatment. It offers a higher level of care because you will be monitored by the medical team managing your trial as well as by your regular oncologist. And you are helping improve treatments for other patients.

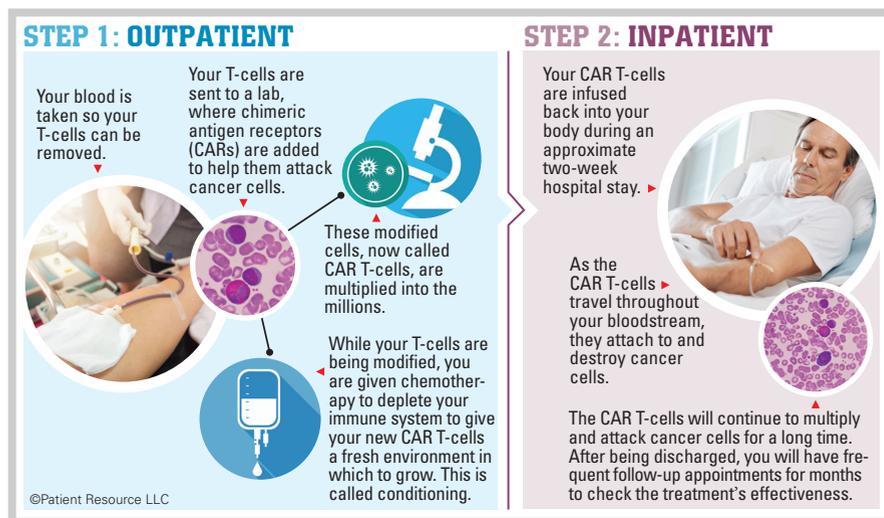
### COMMON DRUG THERAPIES FOR MULTIPLE MYELOMA

These therapies may be used alone or in combination. For some combination therapies your doctor might suggest, go to [PatientResource.com/Multiple\\_Myeloma\\_Treatment.aspx](http://PatientResource.com/Multiple_Myeloma_Treatment.aspx)

- ▶ belantamab mafodotin-blmf (Blenrep)
- ▶ bortezomib (Velcade)
- ▶ carfilzomib (Kyprolis)
- ▶ carmustine (BiCNU)
- ▶ cyclophosphamide
- ▶ daratumumab (Darzalex)
- ▶ daratumumab and hyaluronidase-fihj (Darzalex Faspro)
- ▶ dexamethasone
- ▶ doxorubicin hydrochloride (Adriamycin)
- ▶ doxorubicin liposomal (Doxil)
- ▶ elotuzumab (Empliciti)
- ▶ idecabtagene vicleucel (Abecma)
- ▶ isatuximab-irfc (Sarclisa)
- ▶ ixazomib (Ninlaro)
- ▶ lenalidomide (Revlimid)
- ▶ melphalan (Alkeran)
- ▶ panobinostat (Farydak)
- ▶ pomalidomide (Pomalyst)
- ▶ prednisone
- ▶ selinexor (Xpovio)
- ▶ thalidomide (Thalomid)

As of 2/14/22

### FIGURE 4 CAR T-CELL THERAPY



Ask your doctor if you are a candidate for a clinical trial and whether you should consider one at any time during your treatment.

#### MONITORING TREATMENT RESPONSE

Part of treating multiple myeloma will be ongoing monitoring of your treatment and health status. This ensures that your treatment is working and that the disease has not developed resistance to the medications. One way to prevent resistance is through the use of several drugs together. This may include two, three or four drugs. It is common for multiple myeloma patients to receive more than one drug.

As part of your monitoring, your doctor may use measurable/minimum disease residual (MRD) testing to measure a treatment's effectiveness. MRD is used to describe a very small number of cancer cells that remain in the body during or after treatment. MRD can be found only by highly sensitive laboratory methods that are able to find one cancer cell among one million normal cells. Checking for MRD may help plan treatment, find out how well treatment is working, detect whether cancer has come back or make a prognosis.

When residual cancer cells are still detectable in the blood, this is known as being "MRD positive." When no cancer cells can be

found, it is known as being "MRD negative." Research studies have shown that MRD negativity is associated with longer remissions.

Your doctor may use the term "durable response" to describe a response to treatment that lasts longer than expected. It is typically seen with the use of immunotherapy drugs.

#### MEDICATION ADHERENCE

Most maintenance therapies are given orally, making it crucial for you to take your medication on time. Though oral therapies offer great convenience, it is critical to understand the importance of taking them exactly the way your doctor instructs. To be fully effective, every dose must be taken with the same kind of accuracy, precise timing and safety precautions as infusions and injections, for as long as prescribed. This is known as medication adherence.

Medication adherence is important because most cancer therapies are designed to maintain a specific level of drugs in your system for a certain time based on your cancer type and stage, your overall health, previous therapies and other factors. If your medications are not taken exactly as prescribed, or if you miss appointments for your infusions or injections, the consequences can be serious, even life-threatening. ■

#### FROM THE EXPERT



**"Medication adherence is very important. I like to tell patients the medication can't help you if it's still in the bottle."**

**Dr. James O. Armitage**

# Basics of the stem cell transplant process

**C**ancer treatment, or sometimes the cancer itself, can leave the body unable to produce enough healthy new blood cells. A stem cell transplant, in which healthy blood stem cells are infused into the body typically after high-dose chemotherapy, helps restore this ability. If transplantation is part of your treatment plan, be sure you are aware of what the process entails and how to best prepare for it before and after the procedure.

## TYPES OF TRANSPLANT

Two main types of blood stem cell transplant are available — autologous (auto) and allogeneic (allo). The goal for both types is to destroy all of the cancer cells in the marrow, blood and other parts of the body. High doses of chemotherapy are used and then replacement blood stem cells are infused to create healthy bone marrow and restore the body's immune response.

An auto transplant uses your own stem cells. If needed, you will receive another transplant six to twelve months later, which is called a tandem stem cell transplant. This transplant is the most commonly used for people with multiple myeloma.

An allo transplant may be used in some cases. It uses donated stem cells that come either from a family member or someone not related to you — often found through a registry (see *Donors Save Lives*). Along with replacing stem cells, the donated cells may also kill cancer cells that remain after high-dose conditioning. This is called the graft-versus-tumor effect.

A syngeneic stem cell transplant, in which the patient and donor are identical twins, may be an option.

Another option, though very rarely used for multiple myeloma, is a haploidentical transplant. It allows for half-matches, which widely broadens the number of potential donors. Often, a parent or child is a half-

match. In some cases, an extended family member, such as a grandparent, aunt or uncle, may be a donor candidate.

Your doctor can use different sources of stem cells:

- A **bone marrow transplant (BMT)** uses stem cells from bones. The hip (pelvic) bones have the most marrow, which is why doctors use them most often.
- A **peripheral blood stem cell transplant (PBSCT)** uses stem cells from the bloodstream. Fewer stem cells are here than in the bone marrow.
- A **cord blood transplant** uses stem cells from blood vessels of a discarded placenta or newborn's umbilical cord.

A BMT and a PBSCT may be used for an auto or allo transplant. A cord blood transplant is used for an allo transplant only.

Some allo transplants use milder doses of chemotherapy or radiation therapy (a mini transplant). You may also receive a lymphocyte infusion from the donor to better attack the cancer cells.

Donor tissue needs to match yours as closely as possible. A close match reduces the chance of Graft-versus-Host Disease (GvHD), a serious condition where your body sees the donated cells as foreign and attacks them. A type of white blood cell called a T-cell triggers this reaction.

## UNDERSTANDING THE PROCEDURE

Stem cell transplantation is a lengthy process. The time frame varies depending on the type of transplant. The process has four distinct phases:

1. Stem cell collection from the patient's body or donor. The harvesting of stem cells is called apheresis.
2. Conditioning with high-dose chemotherapy and/or radiation therapy to destroy the myeloma cells.
3. Stem cell infusion of the harvested stem cells back into the patient's body.

4. Engraftment and recovery, in which the healthy cells begin to grow, typically within 30 days. The patient will be at significant risk for infection while the weakened immune system recovers. The number of red blood cells, white blood cells and platelets will continue to be monitored until they reach safe levels.

As you and your doctor discuss this treatment option, be sure to learn as much as you can about the following:

- Expected benefits and risks
- Potential short- and long-term side effects and late effects
- Ways to reduce risk of infection
- The type of help you may need from caregivers and for how long
- Support resources, including help for psychosocial, physical and financial challenges

## GRAFT-VERSUS-HOST DISEASE

This potentially serious side effect of an allo stem cell transplant occurs when white blood cells from your donor (the graft) recognize healthy cells in your body (the host) as foreign and attack them. Graft-versus-Host Disease (GvHD) can cause damage to your skin, liver, intestines and many other organs.

Acute GvHD can occur within the first three months after transplant, even if the donor was a 100 percent match. It can be a serious post-treatment complication. Recently, the U.S. Food and Drug Administration approved a drug designed to prevent acute GvHD. Ask your doctor whether you may be a candidate for this preventive therapy.

Another form, chronic GvHD, may occur more than three months after the transplant and may cause short-term or lifelong symptoms.

Symptoms of GvHD can include skin rashes, yellowing skin or eyes (jaundice) and diarrhea. Contact your doctor immediately if you experience any of the following serious effects:

- Dryness of the eyes and mouth
- Tightening, blistering or burning of the skin
- Jaundice
- Fever
- Sudden weight loss
- Abdominal pain or bloating ■

## Helpful Pronunciations

- ▶ **Allogeneic** (al-oh-jeh-NAY-ik)
- ▶ **Autologous** (aw-TAH-luh-gus)
- ▶ **Haploidentical** (ha-ploy-DEN-ti-kuhl)
- ▶ **Myeloma** (MY-eh-LOH-muh)
- ▶ **Syngeneic** (SIN-jeh-NAY-ik)

## Donors Save Lives



About 70 percent of people who need a bone marrow transplant do not have a matching family member. For that reason, organizations such as Be The Match (operated by the National Marrow Donor Program) have created life-saving registries of millions of potential donors. African American donors, and donors ages 18-35, are especially needed.

→ Learn about the bone marrow donation process and how you may be a match at [www.bethematch.org](http://www.bethematch.org)

# Take advantage of supportive care every step of the way

**T**he term “supportive care” includes many services, all designed to help you manage your diagnosis and treatment most effectively. The goal is to help you maintain the best quality of life possible, and it can begin as early as the day you receive your diagnosis. Along with helping you, it offers valuable assistance to your children, family members, caregivers and others close to you. Ask your doctor, nurse or another member of your health care team how to get started.

Supportive care addresses the physical, emotional, practical, spiritual, financial and family-related challenges associated with cancer. Many people begin by getting help to manage side effects and pain. Counseling about nutrition, fitness, mental health or spirituality; physical/occupational therapy; speech therapy; complementary medicine and other areas are also available.

You may receive these services from an advanced practice nurse, physical therapist, dietitian or palliative medicine specialist who has extra training in symptom management. These services may be offered at the hospital, cancer center or medical clinic and are often covered by individual insurance plans, Medicare and Medicaid. To learn more, you can talk with the hospital’s social worker, financial counselor or your health insurance representative.

## POTENTIALLY SEVERE SIDE EFFECTS

Side effects can range from bothersome to severe. Though serious side effects are rare, it is important to be aware that they can occur with certain types of treatment. Ask your doctor whether you are at risk from the therapies in your treatment plan, how to identify the symptoms and when to seek emergency care. Report symptoms immediately if they occur so they can be treated rapidly. Some potentially severe side effects include the following:

- **Infection** can occur as a result of a low white blood cell count (neutropenia) or other factors. Contact your doctor immediately – do not wait until the next day – if you have any of these symptoms: oral temperature over 100.4 °F, chills or sweating; body aches, chills and fatigue with or without fever; coughing, shortness of breath or painful breathing; abdominal pain; sore throat; mouth sores; painful, swollen or reddened skin; pus or drainage from an open cut or sore; pain or burning during urination; pain or sores around the anus; or vaginal discharge or itching.

If you cannot reach your doctor, go to the emergency room.

- **Immune-related adverse events** (irAEs) may occur with certain immunotherapy drugs if the immune system becomes overstimulated by treatment and causes inflammation in one or more organs or systems in the body. Some irAEs can develop rapidly, becoming severe and even life-threatening without immediate medical attention.
- **Cytokine release syndrome** can occur with CAR T-cell therapies if immune cells affected by treatment rapidly release large amounts of cytokines into the bloodstream. Symptoms may include headache, fever, nausea, rash, low blood pressure,

rapid heartbeat and difficulty breathing.

- **Hepatic toxicity** (liver damage) may occur with some drug therapies. Symptoms may include rash, fever, stomach pain, nausea and vomiting, jaundice (yellow color in the eyes and skin) and fatigue.
- **Infusion-related reactions** most frequently occur with treatment given intravenously (IV) through a vein in your arm, usually soon after exposure to the drug. Reactions are generally mild, such as itching, rash or fever. More serious symptoms such as shaking, chills, low blood pressure, dizziness, breathing difficulties or irregular heartbeat can be serious or even fatal without medical intervention.
- **Tumor lysis syndrome** (TLS) may occur after treatment of a fast-growing cancer, especially certain blood cancers. Symptoms may include vomiting, diarrhea, muscle cramps or twitches, neuropathy and decreased urination. TLS can potentially cause damage to the kidneys, heart, liver or other organs.

## COMMON SIDE EFFECTS AND SOLUTIONS

Cancer and its treatments typically have side

▲ TABLE 1  
SOME COMMON SIDE EFFECTS

Side Effect	Symptoms
Anemia	Low energy, weakness, dizziness, light-headedness, shortness of breath, rapid heartbeat
Blood clots	Leg discomfort
Bone loss and pain	Weakened bone caused by the cancer or treatment
Chemo brain	Brain fog, confusion and/or memory problems
Constipation	Difficulty passing stools or less frequent bowel movements compared to your usual bowel habits
Diarrhea	Frequent loose or watery bowel movements that are commonly an inconvenience but can become serious if left untreated
Fatigue	Tiredness that is much stronger and harder to relieve than the fatigue an otherwise healthy person has
Fever	Raised body temperature that could signal an infection
Hair loss (alopecia)	Hair loss on the head, face and body
Hypercalcemia	Excessive thirst and/or urination, headaches, nausea/vomiting, severe constipation, confusion, depression or decreased appetite
Keratopathy	Changes to the surface of the eye that can lead to dry eyes, blurred vision, worsening vision, severe vision loss and corneal ulcer
Nausea and vomiting	The feeling of needing to throw up and/or throwing up
Neutropenia	Low white blood cell count that increases the risk of infection
Peripheral neuropathy	Numbness, pain, burning sensations and tingling, usually in the hands or feet at first
Respiratory problems	Shortness of breath with or without coughing, upper respiratory infections
Skin reactions	Rash, redness and irritation or dry, flaky or peeling skin that may itch
Thrombocytopenia	Low number of platelets in the blood, which can lead to bruising and bleeding

effects, but people respond differently even if they have the same diagnosis and type of treatment. Ask your doctor what you should expect and ways to relieve or minimize them (see Table 1).

One or more of the following medications may help alleviate some symptoms of myeloma or side effects from its treatment:

- Antidepressants
- Antiemetics (anti-nausea medicines)
- Antimicrobials (antibiotics, antivirals and antifungals)
- Blood thinners
- Bone-modifying agents
- Corticosteroids
- Erythropoiesis-stimulating drugs for stimulating the bone marrow to produce more red blood cells
- White blood cell growth factors to help your body make more white blood cells

These procedures and therapies may also be used alone or in combination:

- Intravenous fluids for dehydration caused by vomiting, diarrhea or mild hypercalcemia.
- Intravenous immunoglobulin (IVIG), which is an infusion of antibodies, may be given to prevent or treat infections.
- Kyphoplasty and vertebroplasty are surgical procedures that may be used if weakened vertebrae collapse. They involve inserting bone cement into a fractured vertebra to help stabilize it and prevent it from moving.
- Occupational therapy (OT) if physical activity and/or daily routines need to be modified due to pain or other limitations.
- Physical therapy (PT) can help build and maintain muscle strength, improve balance and increase coordination.
- Plasmapheresis treats blood that has become too thick from an overabundance of M-proteins, slowing circulation and increasing the risk of blood clots.
- Transfusions inject blood, plasma or platelets intravenously (IV) and may be used for severe cases of anemia.

#### SUPPORT FOR ALL PARTS OF LIFE

Managing a chronic disease can include emotional side effects, such as anger, fear, anxiety, depression and loneliness. These feelings are normal and should be addressed. Taking care of your emotional well-being will help you cope better and manage physical side effects. Get immediate medical attention for thoughts of suicide or death.

## » Palliative Care vs. Hospice Care

**Supportive care services are also referred to as palliative care, and these services are often confused with hospice care. Palliative/supportive care can benefit anyone with a serious or life-threatening illness. It is available at any time, whereas hospice care is reserved for end of life.**

Ensuring you have enough support in other areas, including the following, is important. Talk with your health care team. You do not have to go through this alone.

**Social support** is available in many forms. You may choose to speak with a therapist or attend an online, telephone or in-person group. Many advocacy programs offer one-on-one buddy programs that pair you with another person who has multiple myeloma, and their advice can be invaluable.

**Spiritual guidance** may be provided by a chaplain or spiritual care advisor at the hospital or from your religious community. Spiritual support is available to you even if you do not consider yourself a religious person.

**Financial counseling** may be accessible from a social worker or financial counselor. The stress and anxiety of paying for treatment and other related expenses can negatively affect your well-being. Understand the costs ahead, and make a plan to help you feel more in control.

Keep the lines of communication open with your health care team. Instead of waiting for your next appointment, contact them by phone or portal to let them know when a physical or emotional side effect or symptom begins so it can be treated or managed before it gets worse.

Also, be alert for late effects. They are side effects that can occur months or even years after treatment begins. ■



## HOW CAN YOU PROTECT WEAKENED BONES?

➔ **Over time, multiple myeloma and its treatments can cause bone loss and damage, resulting in bone pain and fractures. Bone destruction can also be caused by cancer metastasis (spread), which can weaken bone and cause pain.**

**Your doctor may order one of the following tests to detect bone problems. The standard test is a bone scan, which can detect bone metastasis before pain or other symptoms occur. Sometimes, other tests such as positron emission tomography/computed tomography (PET/CT) or magnetic resonance imaging (MRI) may be needed to determine whether cancer has spread to the bone. Bone mass is most often measured with a bone density scan, also known as a dual-energy X-ray absorptiometry (DEXA scan). Your doctor may order a bone density scan before cancer treatment begins to get a baseline measurement that can be compared with measurements taken later.**

**You may be at increased risk if you experience any of the following warning signs of bone deterioration: joint or back pain, arthritis-like symptoms, slouched posture, shorter stature and broken/fractured bones. Your doctor may prescribe medication to strengthen bones, so report bone pain as soon as it occurs. Pain management specialists are dedicated to keeping you comfortable while helping prevent further bone damage.**

**Weakened, fragile bones are prone to fractures, which increases your risk of serious injury from a fall. Take these safety precautions at home to help prevent falls.**

- ▶ **Secure rugs to the floor or remove them.**
- ▶ **Clear clutter from hallways, stairs and floors.**
- ▶ **Tape down cords and/or wires.**
- ▶ **Install sturdy handrails on both sides of stairways.**
- ▶ **Place non-slip mats in showers and bathtubs.**
- ▶ **Install grab bars next to toilets, bathtubs and showers.**
- ▶ **Use a shower chair.**
- ▶ **Enlist others for chores requiring a stepstool or ladder.**
- ▶ **Wear shoes until bedtime, avoiding open-heeled shoes and slippers.**
- ▶ **Set up nightlights on the path from the bedroom to the bathroom.**
- ▶ **Limit activity after taking medications that make you sleepy or dizzy.**



# Ongoing monitoring is an essential part of living with multiple myeloma

**M**anaging a chronic disease like multiple myeloma requires routine monitoring. Whether or not you are still receiving treatment, you will be checked at regularly scheduled follow-up appointments to monitor for a possible recurrence or other health care issues. These appointments are important because finding any disease recurrence early is key to successful intervention.

During these visits, you will have exams and lab tests to gauge the multiple myeloma's response to treatment and to determine whether disease has recurred. These check-ups include a review of your medical history as well as a physical exam. They may also include imaging procedures, such as X-rays and positron emission tomography/computed tomography (PET/CT) scans, blood and urine tests and bone marrow biopsy.

These tests are important because when your treatment is no longer working or is not as effective as it once was, your doctor may try another therapy. Along with running tests, your doctor will ask questions about any ongoing physical symptoms you may have, especially those related to recurrence and continued side effects of treatment.

## MAXIMIZING FOLLOW-UP CARE

You and your oncologist or your primary care physician should work together to create a personalized follow-up care plan. Before deciding which doctor to see for this care, consider the type and stage of your cancer, potential side and late effects you may be facing, your health insurance and your comfort level.

Your follow-up plan may include:

- An appointment schedule for ongoing monitoring. These appointments may include medical history, a physical exam,

imaging procedures (such as X-rays and PET/CT scans), urine tests, blood work and other lab tests.

- Instructions for maintenance medications or therapies, including type, dosage, frequency and duration.
- Referral(s) for cancer rehabilitation, such as physical or occupational therapy, career counseling, pain management, nutritional planning and/or emotional counseling.
- Information about your risk of a recurrence, a second cancer, long-term treatment-related side effects and late effects, which are side effects that develop weeks, months or years after treatment ends.
- Recommended screening guidelines for other types of cancer.

You will also be monitored for treatment-related side effects. These follow-up visits are a good time to talk with your health care team about any changes or problems you notice and any questions or concerns you have. However, if you notice new symptoms or side effects in between follow-up appointments, be sure to contact your doctor.

Specific information to discuss at a follow-up visit includes the following:

- New or ongoing physical symptoms that are not adequately relieved, including deep fatigue or insomnia; mobility issues; signs of infection; tingling or numbness;

fluid buildup; or changes in appetite, sense of taste, vision or hearing

- Cognitive (thinking-related) symptoms, such as difficulties with memory, concentration, processing information, word-finding or completing tasks
- Emotional issues, such as depression, anxiety, fear, anger, grief, hopelessness, emotional numbness, feeling overwhelmed or other concerns
- Visits to the emergency room, urgent care or other doctors, even if not cancer-related

## MAKING HEALTHY LIFE CHOICES

Having a well-balanced lifestyle may help you tolerate treatment better, lower the risk of a recurrence or the risk of other chronic diseases, and help protect against secondary cancers. Following are suggestions for smart ways to approach key elements of your everyday life.

- **Get regular exercise.** Even walking 10 minutes a day can provide benefits. Physical activity helps to manage fatigue and may also reduce pain from peripheral neuropathy.
- **Follow a nutritious, heart-healthy diet** that includes a variety of fruits and vegetables, lean meat, low-fat dairy products and foods with plenty of fiber. Total parenteral nutrition (TPN), a type of intravenous feeding, may be necessary to help prevent malnutrition for stem cell transplant patients who have acute Graft-versus-Host Disease.
- **Watch your weight.** It may be difficult to maintain your appetite, which may lead to weight loss.
- **Stay hydrated.** In general, drinking 8 to 10 glasses of fluid a day is recommended. Dehydration can worsen some side effect symptoms. ■



## Getting a handle on testing anxiety

► Having follow-up exams and laboratory testing may bring up feelings of anxiety, sometimes referred to as scanxiety. The feeling is understandable because the results will indicate whether your treatment is working the way it is intended. You may begin to feel anxious as the appointment nears and stay that way until you get your results. That is a lot of stress to put on your mind and body. Find ways to manage the stress:

- Set expectations with your doctor or nurse about when and how you will receive the results so you are not left waiting and wondering.
- Recognize and accept that it is normal to feel this way. Consider discussing your fears with your friends, a support group or a therapist.
- Keep your mind occupied with things you enjoy, such as reading, playing games or gardening. Staying busy gives you less time to worry.
- Try to calm your nerves with meditation or deep breathing.

## Flexibility is critical when caregiving

**A**s a caregiver for someone with multiple myeloma, you will have many important roles, from attending medical appointments and communicating with your loved one's health care team to cooking, shopping and providing emotional support. In addition, your loved one's needs will likely change depending on the course of the disease and the treatments given. Your flexibility and willingness to adapt will be key.

**Stay alert.** You will likely spend more time than anyone with your loved one, which means you may notice changes more easily than a doctor or nurse. Before treatment begins, find out which symptoms and side effects require a call to the doctor or emergency medical attention.

**Educate yourself.** Using reputable resources such as this guide and those recommended by the health care team, learn about your loved one's multiple myeloma diagnosis. The more you know, the better prepared you will be to help meet your loved one's needs.

**Continue to learn.** Inform yourself about

the various treatments in your loved one's treatment plan, such as drug therapies, stem cell transplants and CAR T-cell therapy. Treatments are often used in combination, and they may change based on effectiveness and disease progression. Each has different potential side effects, making it important to know what to expect and when a serious side effect requires immediate medical attention.

**Track side effects.** It helps to know when side effects occur, how long they last and if anything makes them better. Share this information with your loved one's health care team at a regularly scheduled appointment or sooner if your loved one is not getting the necessary relief.

**Manage medications and appointments.** Cancer medications are most effective when taken exactly as prescribed. Help your loved one stay on schedule with medications taken at home and those given at medical appointments. Use a calendar, pill box or reminder tool. Ensure your loved one attends all appointments for treatments and follow ups.

**Be a good listener.** Living with a chronic blood cancer can be overwhelming. Simply listening when your loved one needs to talk is more helpful than you may realize. It often helps for people to talk with others who have a similar diagnosis. Consider suggesting a multiple myeloma support group as a way to help your loved one manage their feelings.

**Encourage a healthy lifestyle.** This applies to both of you. Follow a nutritious diet, exercise, limit risk of infection and get enough sleep. Ask your loved one's health care team for suggestions. ■

## TELEHEALTH

## Technology provides appointment options

**S**ometimes referred to as virtual appointments, telehealth visits enable you to meet with your medical team using technology such as computers, cameras, video conferencing and the internet. These visits are a complement to in-person visits. They don't replace seeing your doctor but offer the opportunity to communicate and receive care when it is not medically necessary to be seen in person.

Telehealth visits may be permitted by your doctor depending on your current condition, especially if you are in remission, are taking oral-based therapies or are receiving maintenance therapy.

Following are some of the benefits of making a virtual appointment:

- Reduces travel if you live far from the medical office.
- Eliminates the need to find transportation or child care.
- Reduces potential exposure to infections in clinics and hospitals.
- Enables you to stay home if you feel unwell or find it physically challenging to go to the appointment.

- Offers an easy way to report symptoms or complications between follow-up visits.
- Allows caregivers to attend and ask questions.
- Makes it easier to obtain a second opinion, especially if the specialist is located far away.

Make the most of your appointment by doing the following:

- Make a list of the subjects you want to discuss.
- Review your medications to know which ones need refills.
- Complete any lab work ahead of time so the results are available to discuss.

- Take your blood pressure and temperature if you are able.
- Plan to be in a room without distractions, such as a barking dog, television, etc.
- Have a pen and paper to take notes, and ensure you have a surface to write on.
- Invite a caregiver or loved one to participate by asking questions, taking notes and just listening.

Be aware that you will be billed for a telehealth visit just as if you were seeing the doctor in person. Many private health insurance plans, Medicare and Medicaid pay for some telehealth services, but you should check with your provider before making an appointment so you know what is covered and what you will be expected to pay out of pocket.

If telehealth is something you would like to try but are unsure of how to use the technology, let your medical team know. They can offer instructions to help you get the best care available. ■

# Support and financial resources available for you

## CAREGIVERS & SUPPORT

4th Angel Patient & Caregiver Mentoring Program.....	www.4thangel.org, 866-520-3197
Cactus Cancer Society.....	www.cactuscancer.org
CanCare.....	www.cancare.org, 888-461-0028
CANCER101.....	www.cancer101.org, 646-638-2202
Cancer and Careers.....	www.cancerandcareers.org, 646-929-8032
CancerCare.....	www.cancer.org, 800-813-4673
Cancer Connection.....	www.cancer-connection.org, 413-586-1642
Cancer Hope Network.....	www.cancerhopenetwork.org, 877-467-3638
Cancer Really Sucks!.....	www.cancerrealsucks.org
Cancer Support Community.....	www.cancersupportcommunity.org
Cancer Support Community Helpline.....	888-793-9355
Cancer Survivors Network.....	csn.cancer.org, 800-227-2345
Caregiver Action Network.....	www.caregiveraction.org, 855-227-3640
CaringBridge.....	www.caringbridge.org
Center to Advance Palliative Care.....	www.capc.org
Chemo Angels.....	www.chemoangels.com
Cleaning for a Reason.....	www.cleaningforareason.org
Connect Thru Cancer.....	www.connectthrucancer.org
Cooking with Cancer.....	www.cookingwithcancer.org, 205-978-3570
Family Caregiver Alliance.....	www.caregiver.org, 800-445-8106
Friend for Life Cancer Support Network.....	www.friend4life.org, 866-374-3634
The Gathering Place.....	www.touchedbycancer.org, 216-455-1517
Guide Posts of Strength, Inc.....	www.cancergps.org, 336-883-4483
Imerman Angels.....	www.imermanangels.org, 866-463-7626
Livestrong Foundation.....	www.livestrong.org, 855-220-7777
Living Hope Cancer Foundation.....	www.getupandlive.org
LivingWell Cancer Resource Center.....	www.livingwellcrc.org, 630-933-7860
Lotsa Helping Hands.....	www.lotsahelpinghands.com
The Lydia Project.....	www.thelydiaproject.org, 877-593-4212
MyLifeLine.....	www.mylifeline.org, 888-793-9355
National LGBT Cancer Project.....	www.lgbtcancer.org, 212-673-4920
Patient Empowerment Network.....	www.powerfulpatients.org
SHARE Caregiver Circle.....	www.sharecancersupport.org/caregivers-support, 844-275-7427
Stronghold Ministry.....	www.mystronghold.org, 877-230-7674
Triage Cancer.....	www.triagecancer.org, 424-258-4628
Walk With Sally.....	www.walkwithsally.org, 310-322-3900
Well Spouse Association.....	www.wellspouse.org, 732-577-8899
weSPARK Cancer Support Center.....	www.wespark.org, 818-906-3022
Wigs & Wishes.....	www.wigsandwishes.org

## CLINICAL TRIALS

Be the Match   Jason Carter Clinical Trials Program.....	www.ctsearchsupport.org, 888-814-8610
Cancer Support Community.....	www.cancersupportcommunity.org/find-clinical-trial, 888-793-9355
Center for Information & Study on Clinical Research Participation.....	www.searchclinicaltrials.org
ClinicalTrials.gov.....	www.clinicaltrials.gov
Lazarex Cancer Foundation.....	www.lazarex.org, 877-866-9523, 925-820-4517
Multiple Myeloma Research Foundation.....	www.themmf.org/resources/clinical-trial-finder
National Cancer Institute.....	www.cancer.gov/clinicaltrials
NCI Cancer Information Service.....	800-422-6237
WCG CenterWatch.....	www.centerwatch.com, 866-219-3440

## MULTIPLE MYELOMA

American Society of Hematology.....	www.hematology.org
The Angiogenesis Foundation.....	www.angio.org/learn/treatments
Asian American Donor Program.....	www.aadp.org
Be The Match.....	www.bethematch.org
Delete Blood Cancer DKMS.....	www.dkms.org
HEADstrong Foundation.....	www.headstrong.org
International Myeloma Foundation.....	www.myeloma.org
Multiple Myeloma Research Foundation.....	www.themmf.org
Myeloma Central.....	www.myelomacentral.com

## NUTRITION

American Cancer Society.....	www.cancer.org, 800-227-2345
CancerCare.....	www.cancer.org, 800-813-4673
Cancer Support Community.....	www.cancersupportcommunity.org, 888-793-9355
LLS   PearlPoint Nutrition Services.....	www.pearlpoint.org
OncoLink.....	www.oncolink.org
Physicians Committee for Responsible Medicine.....	www.pcrm.org/health-topics/cancer

## PAIN MANAGEMENT

American Chronic Pain Association.....	www.theacpa.org
American Society of Anesthesiologists.....	www.asahq.org
Cancer Pain Research Consortium.....	www.cancerpainresearch.com
U.S. Pain Foundation.....	www.uspainfoundation.org

## PRESCRIPTION EXPENSES

America's Pharmacy.....	www.americaspharmacy.com, 888-495-3181
The Bone Marrow & Cancer Foundation.....	www.bonemarrow.org, 800-365-1336
CancerCare Co-Payment Assistance Foundation.....	www.cancer.org, 866-552-6729
Cancer Financial Assistance Coalition.....	www.cancerfac.org
Good Days.....	www.mygooddays.org, 972-608-7141
HealthWell Foundation.....	www.healthwellfoundation.org, 800-675-8416
Medicine Assistance Tool.....	www.medicinassistancetool.org, 571-350-8643
National Organization for Rare Disorders.....	www.rarediseases.org, 800-999-6673
NeedyMeds.....	www.needymeds.org, 800-503-6897
Patient Access Network Foundation.....	www.panfoundation.org, 866-316-7263
Patient Advocate Foundation Co-Pay Relief.....	www.copays.org, 866-512-3861
Patient Services Inc.....	www.patientservicesinc.org, 800-366-7741
RxAssist.....	www.rxassist.org
RxHope.....	www.rxhope.org
SingleCare.....	www.singlecare.com, 844-234-3057
Stupid Cancer.....	www.stupidcancer.org, 212-619-1040
Together Rx Access.....	www.togetherrxaccess.com, 800-444-4106

## REIMBURSEMENT & PATIENT ASSISTANCE PROGRAMS

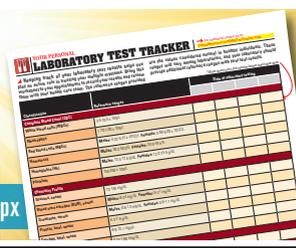
Abecma Cell Therapy 360.....	www.abecma.com/resources/cell-therapy-360, 888-805-4555
Amgen First Step.....	amgenfirststep.com, 888-427-7478
BI Cares Patient Assistance Program.....	www.boehringer-ingenelheim.us/our-responsibility/patient-assistance-program, 800-556-8317
Blenrep Together with GSK Oncology.....	www.togetherwithgskoncology.com/patient-information/blenrep, 844-447-5662
Bristol-Myers Squibb.....	www.bms.com/patient-and-caregivers/get-help-paying-for-your-medicines, 800-721-8909
Bristol-Myers Squibb Access Support.....	www.bmsaccesssupport.bmscustomerconnect.com/patient, 800-861-0048
CareASSIST by Sanofi Genzyme.....	www.sanoficareassist.com, 833-930-2273
Cell Therapy 360.....	www.celltherapy360.com, 888-805-4555
Darzalex Faspro Janssen CarePath.....	www.janssencarepath.com/patient/darzalex-faspro/patient-support, 844-553-2792
Darzalex Janssen CarePath.....	www.janssencarepath.com/patient/darzalex/patient-support, 844-553-2792
Darzalex Patient & Medication Cost Support.....	www.darzalex.com/iv/patient-cost-support, 844-553-2792
Empliciti Bristol Myers Squibb Access Support.....	www.empliciti.com/financial-assistance, 800-861-0048
Farydak Secura Care Patient Support.....	www.farydak.com, 844-973-2872
Janssen CarePath.....	www.janssencarepath.com/patient, 844-553-2792
Karyopharm Therapeutics KaryForward Program.....	www.karyforward.com, 877-527-9493
Kyprolis Patient Support.....	www.kyprolis.com/patient-resources, 888-427-7478
Ninlaro Takeda Oncology Here2Assist.....	www.ninlaro.com/financial-support, 844-817-6468
Revlimid Bristol Myers Access Support.....	www.revlimid.com/cost-access, 800-861-0048
Sarclisa CareAssist.....	www.sarclisa.com/paying-for-sarclisa, 833-930-2273
Secura Care Patient Support Program.....	www.securabio.com/patient-support-programs, 844-973-2872
Takeda Oncology Here2Assist.....	www.here2assist.com, 844-817-6468
Thalomid Patient Support.....	www.bmsaccesssupport.bmscustomerconnect.com/patient, 800-861-0048
Together with GSK Oncology.....	www.togetherwithgskoncology.com/patient-information, 844-447-5662
Velcade Reimbursement Assistance Program (VRAP).....	www.velcade.com/paying-for-treatment, 844-817-6468
Xpovio KaryForward Program.....	www.karyforward.com, 877-527-9493

## TRACKING TOOL

Use this resource to log lab results

Download at

[PatientResource.com/MMTestTracker.aspx](http://PatientResource.com/MMTestTracker.aspx)





Your insights can  
change the future of  
multiple myeloma  
support



Use the QR code  
to take the survey

Did your cancer experience  
include the social support  
you needed?

Did you experience  
problems accessing care?

Did caregiving impact  
your quality of life?

## Participate in Important Research

The **Cancer Experience Registry (CER)** survey from Cancer Support Community (CSC) uncovers the emotional, physical, practical, and financial impact of cancer to help patients and caregivers get the support they need. Through the CER survey, we reach those impacted by cancer so their voices can be part of this important research and so that together, we can:



Influence healthcare  
policies



Enhance cancer care



Improve support  
services

P A T I E N T  
R E S O U R C E

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*Where information equals hope*