



# Burn Injury Survivor's Guide



James M. Roswold

An astonishing 4,500 burn injuries will result in death this year in the United States alone. For the survivors of burn injuries, the physical pain can be unbearable. For those less fortunate, family and friends are left in the wake of grief and loss. Learn how to rebuild a life following a severe burn injury to you or someone you know.

**Kansas City Accident  
Injury Attorneys**

**1102 Grand Blvd.  
Suite 1901**

**(816) 471-5111**

**Fax: (816) 471-7199**

## **Table of Contents**

<b>Understanding Burn Injury .....</b>	<b>3</b>
<b>Types of Burn Injury .....</b>	<b>5</b>
<b>Treatment for Burn Injury .....</b>	<b>6</b>
Surgical Treatment for Burns .....	6
Candidates for Surgery .....	7
Skin Graft Surgery.....	7
Non-Surgical Treatment for Burns .....	8
Pressure Garments: Helping You Heal After a Burn Injury .....	8
<b>Psychological Aspects of Burn Injuries .....</b>	<b>9</b>
Healing & Rehabilitation.....	9
Going Home & Finding Support .....	10
<b>Dealing with Grief and Loss after a Burn Injury.....</b>	<b>11</b>
The Stages of Grief.....	11
Common Misconceptions about the Grieving Process .....	12
The Importance of Taking Care of Yourself.....	13

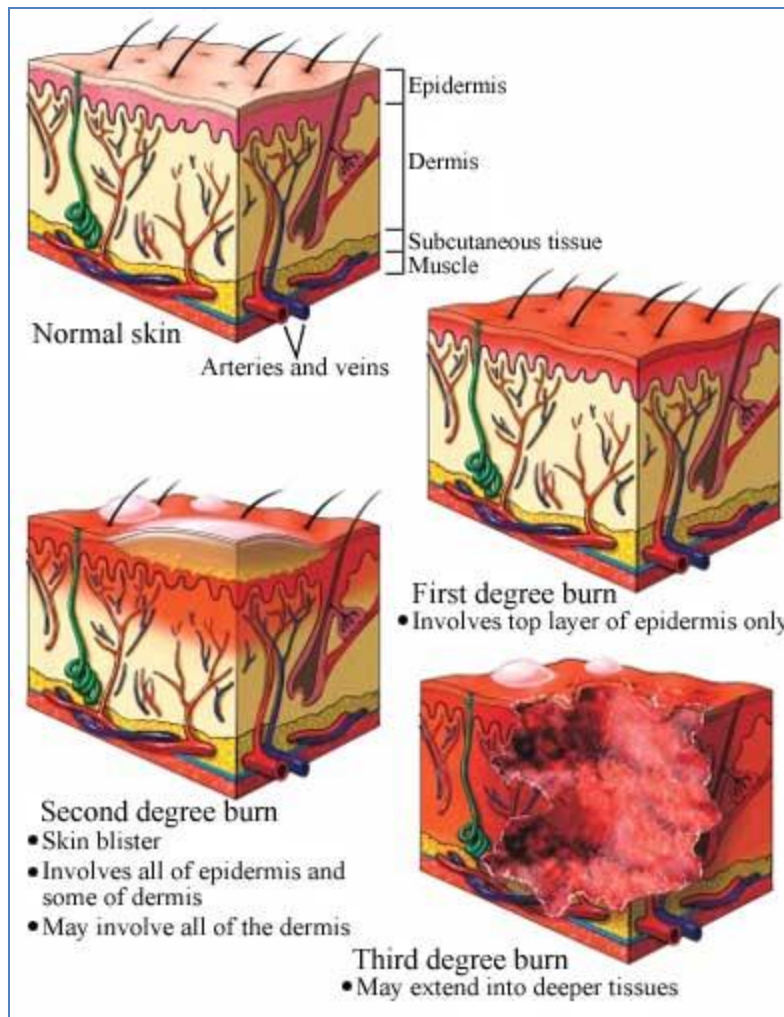
## Understanding Burn Injury

Burn injuries account for almost as many accidental deaths in the United States as car accidents. Each year, over one million Americans will suffer from a burn injury. Kansas City burn injury victims often face debilitating results following a burn injury. The pain can persist for years. Learn about the types of burn Injuries and what burn patients may face in the years to come.

An astonishing 4,500 burn injuries will result in death annually. For the survivors of burn injuries, the physical pain can be unbearable. The initial treatment for the burn injury can be painful, extensive, and expensive. Follow-up treatment can become an overwhelming aspect of life with multiple surgeries, skin grafts, check-ups and other treatments. Physical scarring, such as keloid scars, can leave the burn patient with a life completely different than the life they had before the burn injury. Emotional scarring can be debilitating as well.

Hospitalization is a requirement for around 500,000 burn patient every year. Amazingly, 43 percent of burn injuries occur in the home. Another amazing statistic shows that the same amount of fires, 43 percent, happen in homes with no fire alarm system. Fires cause a perplexing \$7 billion in damages annually.

Burn injuries are grouped into three different categories. Each category, or degree, ranks the severity of the injury and the damage to the patient's body.



- **First degree burns** affect the outer layer of the skin's surface. Following exposure the skin will appear red and blotchy. The skin will be sensitive and painful, and swollen as well. First degree burns do not go past the first layer of skin.
- **Second degree burns** are characterized by redness and swelling. Blisters are a common symptom of second degree burns. Swelling and pain make the patient extremely uncomfortable. Untreated severe second degree burns can turn into more serious third degree burns.
- **Third degree burns** are sometimes not painful due to the destruction of nerve tissue. Third degree burns are extremely serious injuries that must be treated by a doctor. Skin may appear see-through or even charred. Damage to three layers of skin make the long term prognosis of burns difficult. Many burns will take a long time to heal. Scarring is usually bad as well.

Sometimes, a severe enough burn injury will be characterized as a fourth degree burn. This type of burn extends beyond the skin to muscle and bone tissue. Fourth degree burns can require amputation and may be life threatening.

## Types of Burn Injury

There are many different types of burns that can cause extensive permanent damage to both external and internal parts of the body. It is important to note that each of these burn injuries carries its own special brand of dangers and treatment requirements.

Typically, the most severe type of burn is a **thermal burn**. Thermal burns are burns that involve exposure to high heat, above 115 degrees Fahrenheit, from steam, boiling water, fires, or heated metal. Thermal burns include burns from flames, inhaled smoke, or scalding by hot liquids and gases. Some specific examples/sources of thermal burns are outlined below:

- **Auto Accidents**—can occur when dangerously exposed to the chemicals in an airbag that catches fire (chemical burn), or when the accident causes an increase in temperature because of the airbag activating (thermal burns)
- **Clothing Burns**—Clothing doesn't just catch fire from an open flame, at certain levels of heat clothing can combust on its own.
- **Gas Burns**—As a common household utility, gas explosions can occur and leave residents with severe degrees of burn.
- **Home Appliance Burns**—defective products or poor product instructions can result in burns with home appliances, such as: clothes dryer, water heater, ovens, stoves, etc.
- **Inhalation burns** come from breathing in toxic gases. Internal injuries to the respiratory system are often the result.
- **Internal Smoke Burns**—can damage all body parts required for breathing, because when the smoke inhaled is too hot it can burn and permanently damage internal pulmonary organs.
- **Structure Fires**—can be difficult to escape before burning occurs, and some structures are more flammable than others.
- **Industrial Accidents**—often occur in the workplace and as a result of explosions from highly combustible materials.
- **“Road Rash”**—typically a deep abrasion, but at high speeds friction can cause heating which burns the skin.
- **Scalding Liquids & Gases**—occur when one comes into close contact with a very hot substance in either liquid or gas form, such as when you burn your hand in very hot water or even steam.

**Chemical burns** occur when the skin is exposed to dangerous chemicals and/or substances such as an acid, a base, an alkylant, some oxidized substances, various solvents, and “reducing agents.” Chemical burns can result from contact with ultraviolet (UV) light, poor electrical circuiting, and various acidic or chemically-based substances. Some specific examples/sources of chemical burns are outlined below:

- **Acid Burns**—when an acidic substance chemically burns and destroys bodily tissue.

- **Cleaning Product Burns**—can occur due to the high toxicity of some cleaning products, and in the United Kingdom, researchers have found some cleaning products to be cancer-causing.
- **Electrocutions**—another type of thermal burn and at high levels of voltage can cause internal damage.
  - Electrical burn injuries are the result of a high voltage current traveling through the body. The painful exit wound is often a severe burn.
  - Electrical Power Line Burn—the danger of power lines is the electrical current running through them, that when interrupted can be released from its path and physically harm one standing close by.
- **Radiation injuries** can happen when the person is exposed to nuclear radiation, like an x-ray. Tanning beds or other sources of ultraviolet light can also cause radiation burns.
- **UV Burns**—overexposure to UVA rays can cause visible damage to skin, while UVB rays are more frequently recognized as a carcinogen.
  - Indoor Tanning Burns—Tanning consultants may underestimate a person’s ability to burn, and when this happens intense pain from tanning burns can last for weeks with permanent damage to follow.

## Treatment for Burn Injury

Sustaining a burn can be on one of the most painful injuries to endure. Proper burn treatment is essential for the recovery. Depending upon the severity of the burn, some burn patients may face surgery treatment options, while others can be successfully treated through non-surgical means. Additionally, it is important to note that certain treatments may be required to continue after the initial burn wound has healed. In these cases, patients are faced with multiple surgeries and doctors visits, perhaps for months and even years to come.

## Surgical Treatment for Burns

There are two main categories of burn surgery: acute and reconstructive. The former occurs immediately following the accident and is typically performed by a team of trauma surgeons who specialize in burn injury. The latter occurs after the initial burn wounds have healed.

- **Acute Surgery:** Treatment that occurs directly following the burn injury is referred to as acute treatment. Usually, for severe burn injuries the treatment will take place in an emergency or trauma facility setting. The patient may be under the care of an entire team of doctors and nurses, including a plastic surgeon. This team will most likely have expertise in treating acute burns. Patients who suffer from severe or large scale burns may find better treatment options in an actual burn center and might be transferred there from the hospital accordingly. Less severe burns can be treated on an outpatient basis.

- **Reconstructive Surgery:** After the original burn injury is healed, decisions will be made about follow-up care. Reconstructive surgeries may be necessary for the burn patient. Surgeries and treatments may last for years after the original injury. Reconstructive surgery serves two purposes. First to address function and second to address cosmetic appearance of the burn. Both will be brought into consideration as the plastic surgeon decides what course of treatment to follow.

In some cases, however, reconstruction is not just about scarring and appearance, but proper function. Some burn injuries damage enough muscle tissue that body function is compromised. Reconstructive surgery can help modify the scar tissue and improve mobility and function. For young burn patients, this is especially vital. As children grow multiple surgeries may be required to keep up with the child's new growth. Reconstructive surgery, in these instances, seeks to correct new scar contractures, or the changes in the muscles and connective tissues from scarring.

### Candidates for Surgery

Surgery candidates understand that surgery cannot completely erase every scar. Surgeons work to correct the functional issues after the burn, which in many cases includes physical appearance as well. Work on such features as the eyelids, nose, lips, and the hairline may be addressed by the surgeon.

Some surgical procedures focus on improving range of motion in the neck, shoulders, head, and the limbs. Scar release therapy is a procedure in which the surgeon cuts through a tight scar and then follows up with the appropriate measures to fix the wound. Skin grafts, Z-plasty, or other surgeries are commonly used.

### Skin Graft Surgery

Burn victims who suffer severe burns may need special treatment to repair their injuries. For Kansas City burn victims, knowledge of the skin grafting process can help alleviate fears about the surgery, as well as what may be required for recovery.

Skin graft patients can include burn victims who have suffered third degree burns. For patients who are undergoing reconstructive plastic surgery, skin grafts may be a necessary part of the process. Other circumstances that require a skin graft may include severe skin infections resulting in complete skin loss. Additionally, combat victims that have suffered severe injuries can also require a skin graft.

During the skin graft surgery, a section of healthy skin is removed from the donor site and used to create a skin patch to replace the damaged skin. Patients will be sedated or completely anesthetized and unaware of the pain. Using a tool called a dermatome doctors carefully remove small sections of skin that include both the epidermis (the outer most layer of skin) and the dermis (the layer beneath that).

Skin grafts are separated into two categories, known as split-thickness skin grafts and full-thickness skin grafts. Split-thickness skin grafts include the outer layer and the immediate inner layer of skin as described before. Full-thickness grafts include the blood supply and the muscle tissue from the donor site. Expectedly, full-thickness surgeries are more complicated than split-thickness procedures.

Donor skin is usually taken from areas of the body that can be hidden from view. Whether that site is the buttocks or the inner thigh or another well-concealed area, matching the color and tone of the skin to the recipient site is an important aspect of the surgery. After the new skin is removed, the donor site will be covered by sterile dressings for a number of days to protect it from infection.

Amazingly, within 36 hours of the surgery, blood flow will reach the new skin. Skin grafts are highly successful, though there is a low rate of rejection that may require a secondary graft. The key to the success of the skin graft is found in the quality of the blood circulation within hours after the surgery. The skin graft site will be checked and rechecked for days following the surgery. The new skin should not be subjected to stretching or tearing within three to four weeks after the surgery.

## **Non-Surgical Treatment for Burns**

Some treatments that do not require hospitalization can be effective. Pressure garments, for example, are can be utilized in occupational therapy sessions. Other therapies can help that patient work through issues and regain strength and mobility.

### **Pressure Garments: Helping You Heal After a Burn Injury**

During recovery from a burn injury, Kansas City burn victims may be fitted with the use of pressure garments in order to speed the healing process. The use of pressure garments in addition to further therapy can help the burn victim along the road to recovery.

Under normal circumstances the outer layers of the skin exerts a natural pressure on the inner layers. When a burn injury has taken place, the natural pressure is gone and the result is a condition under which scar tissue can form. When the pressure is missing, a substitute source of pressure can help restore an environment that will promote better healing.

Pressure garments provide substitute pressure on the layers of skin that can fight the formation of thick, hard scar tissue called a hypertrophic scar. Pressure garments can help the healing process form soft and flexible scars that will not impede the mobility and movement at the burn site. This outside pressure can also help keep swelling down and slow blood flow to the scar. The use of a pressure garment should begin as immediately after the wound has healed, while the skin is still soft.



Pressure garments should be put into use as soon as possible following the injury. Pressure garments can be worn for 23 hours every day, and removed for hygienic purposes. Pressure garments may be worn for many months, or even over a year following the initial injury. These garments go a long way in promoting healing after a bad burn injury. Pressure garments can also prevent further injury from affecting the existing wound.

Pressure garments should fit snugly. Your medical provider or physical therapist should teach you the proper way to care for the garment. You will need to learn the proper way to remove the garment for bathing. If the pressure garment is too tight or uncomfortable, it is important to notify your healthcare provider and get proper fitting pressure garments.

Pressure garments should be washed by hand and allowed to air dry. Drying the garments in the dryer or other heat source may cause shrinkage, changing the way the garments fit. Avoid petroleum based lotions and creams which can harm the material in the pressure garment. If you are going to come into contact with chlorinated or salt water, thoroughly cleanse and rinse the pressure garment.

## **Psychological Aspects of Burn Injuries**

Once all vital bodily functions have returned to levels where survival is assured, a burn injury victim enters into the recovery phase of his or her hospital care. The recovery phase signifies that the individual needs neither life-saving surgeries nor intensive care at this point.

Throughout the recovery phase burn injury patients usually undergo extensive physical and occupational therapies. They may also endure smaller surgical procedures, and they may start to exhibit a growing awareness of their injuries impact and long-term implications.

In addition to the physical injuries that burn victims endure, it is important to remember that they have also suffered severe psychological harm. Severe burn injuries are almost always the result of sudden, frightening situations – such as an explosion or an auto accident. The unexpected trauma, the person's helplessness, and the enduring pain that makes the events impossible to forget are conditions that can give rise to Post Traumatic Stress Disorder (PTSD).

During the recovery phase of hospital care, studies estimate that more than 30 percent of burn injury patients show symptoms of PTSD. These systems can include any combination of the following: flashbacks, hypervigilance (constantly tense and "on guard") and hyperarousal (general irritability), fearfulness, and sleep disturbances. Medication and individual counseling can be very helpful with these painful symptoms.

## **Healing & Rehabilitation**

Even after a burn injury victim's condition has stabilized and they are no longer in critical condition, he or she will still require a long period of hospital care. Successful treatment of and

healing from severe burns depends upon preventing infection, dealing with those infections that do arise, and supporting the growth of new tissue while suppressing the formation of scar tissue as much as possible.

Attitude and motivation are two of the most powerful tools when it comes to rehabilitating after a burn injury. Many experts in the field suggest that these two elements are, in fact, perhaps even more important than the degree of the physical injury or injuries sustained.

During the healing and rehabilitation process, the patient and his or her family will begin to fully recognize the extent of the injuries, the medical procedures that have been and will be required, as well as the implications for the patient's life. In order to be successful, the rehabilitation program must have realistic goals and both patient and family must be a part of the treatment planning process.

Rehabilitation is often one of the most grueling parts of the healing process for patient and family. Coming to terms with the extent of their injuries and participating in the physically and emotionally demanding therapy sessions wears on all parties involved. Therapists must constantly fine-tune their programs so that the patient is challenged just enough to not be discouraged (but still making forward progress). Predictability in one's schedule during the rehabilitation process is most often a must. Additionally, pain and anti-anxiety medications, gentle encouragement and patience, and a respect for the individual patient's needs and responses are all essential to the rehab program and its success.

Before being discharged from the hospital, the burn survivor should be able to stand, move around, and go to the bathroom unassisted.

## Going Home & Finding Support



Talk to any serious burn survivor, and most will say that the hardest part of their recovery came during the first year to eighteen months after they were discharged from the hospital. It takes time for the individual to adjust to their new limitations and the needs of home, work, or school. For those who are diagnosed with PTSD during their hospital stay, symptoms of the disorder usually persist for some time after returning home.

Although they are home, many burn survivors will continue with occupational and physical therapy, in addition to other reconstructive surgeries in the future.

Support groups are an invaluable resource for burn injury survivors. It gives those people involved others to relate to – people who have been through what they are going through and can help encourage them and guide them with words of wisdom. One such group is *The Phoenix Society of Burn Injury Survivors*.

## Dealing with Grief and Loss after a Burn Injury

According to *The Phoenix Society for Brain Injury Survivors*, “Grief and loss are two universal happenings all people will experience at some point in their lifetime. Some may experience more than others, but at some point, each of us is affected by it in some way. Grief can be defined as the emotions and sensations that accompany the loss of someone or something dear to us. Grief can be experienced in many different ways, and no two people will grieve in the same way. We all grieve at our own pace. It is important to be supportive of those going through their grief journey to let them do it their way and be supportive by following their lead.

A person who has had a burn injury can go through many different types of grief and loss. The person can grieve for their former self, their injuries, or even the loss of control. These types of loss should not be ignored; they should be acknowledged and addressed so the person can work through their recovery.

### The Stages of Grief

Mourning the loss of a loved one or the loss of part of one’s self is not an event, it is a process. Each stage may take weeks or many months to work through completely, and for some the process is never completely over.

While there are some basic stages of grief most people common to most experiences, but it is important to remember that dealing with a loss is a very individual process. Some people follow the same path, while others may skip one stage entirely.

1. **Shock:** Sometimes the facts about the death are not possible to process all at once. Grief stricken family members may even deny that the death has occurred. This is a self defense mechanism some people use in the very early stages of grief. As time goes on, they are able to accept the loss and begin the lengthy process of recovery.
2. **Emotional Release:** At some point, emotions and feelings rise to the surface, though sometimes the bereaved try to push the feelings back down. Feelings that are bottled up will eventually come to the forefront, and feelings that are denied may come in a storm of grief with hurtful consequences. Dealing with these feelings can be tough at times, but the long term effects can be a release of sorts.
3. **Preoccupation with the Deceased or the Crisis:** It should be understood that especially in the early stages of grief, the tendency to think about anything but the death or the loved one is entirely within the realm of normal. Experiencing preoccupation with such thoughts is hard to handle at times, but can come and go.
4. **Physical Symptoms:** Emotions can come out in physical symptoms. Like other forms of grief, this can come and go within the first few months following the death. Physical symptoms can range from a loss of appetite and trouble sleeping to tightness in the chest and feeling unable to breathe. Other symptoms may include a hollow feeling in the stomach and loss of muscular function.

5. **Emotional Reactions:** Just as physical symptoms can manifest within the grieving process, some emotional reactions can occur. The list can include:
  - ✚ Feelings of distance from friends and family members
  - ✚ The sense living in the surreal
  - ✚ Panic or the desire to run away
  - ✚ Feeling unimportant and insignificant
  - ✚ Visual changes, feeling like the eyes are “playing tricks on you.”
6. **Hostile Reactions:** Sometimes emotions can come out in hostile manifestations. These reactions can bubble up when they are least expected, and may leave the grieving with a sense that they are going out of their minds. Feelings of anger can rise up against God, medical staff, other family members, even the deceased. Each of these emotional reactions is honest and normal.
7. **Guilt:** This is one of the most common emotions associated with grief. Past wrongs and hurts take new focus; the grief-stricken often feel like they have committed unforgiveable wrongs.
8. **Depression:** Withdrawing from friends and family and any form of socializing is another normal stage. Daily routines and responsibilities can become sources of great stress. Many find themselves fighting the desire to go to bed and never leave. These are more signs of a normal grieving process and will pass with time.
9. **Resolution and Readjustment:** With time, adjustments are made to life without the deceased. A new sense of normal creeps in and the acute stages of grief begin to fade. Memories can bring back some stages of grief, and the process is never entirely over. Things do get easier, however, with the passage of time.

### Common Misconceptions about the Grieving Process

Sometimes the pain of death or loss can be exacerbated by misunderstanding the grieving process. Myths can perpetuate feelings of inadequacy and “dealing with it all wrong” for someone who is hit head on by the torrent of emotion losing a loved one can bring.

The following are a few of the more common misconceptions and the truth about grief:

- ✚ **Grieving should last about a year.** This myth is both untrue and unfair. Grieving is a very individual process. The time frame can vary greatly from person to person. There is no correct length of time to mourn the loss of a loved one.
- ✚ **If you really loved him/her, you will cry until your eyes run out of tears.** Some people express emotions stoically. A lack of crying does not equate a lack of grief. For many, mourning takes on a very private and introverted form. Pain over a loss is not measured in tears.

- ✚ **You must square your shoulders and stand strong.** Many people think of standing strong as a duty. They mistakenly assume that family members cannot deal with the depth of their pain so they hide their real emotions from everyone. This is not only unfair but potentially harmful. Grieving is a process and each survivor must be allowed to express his or her grief. In fact, showing younger family members that it is okay to mourn the loss of a loved one, to honestly deal with their emotions.
- ✚ **Denial of the pain will make it go away.** Pushing the pain away or denying its existence only prolongs the process. Dealing with grief and loss takes time and has to be endured otherwise real healing will never take place.
- ✚ **Friends and other family members must walk on eggshells around the grieving.** Mention of the deceased is not going to cause those in mourning to hurt worse. If anything, pretending that the lost one never existed can cause confusing emotions and feelings that expressing grief is somehow wrong.
- ✚ **If you begin to move forward, it means you have forgotten the loved one you lost.** Moving on is a natural part of the healing process. Moving on does not mean the lost loved one has been forgotten; it simply means that time has taken its toll and life must go on.

## The Importance of Taking Care of Yourself

The idea of taking care of you has become erroneously synonymous with pampering and selfish behavior. This is a most unfortunate misconception, especially in terms of those who are facing a high degree of stress. Dealing with grief is no exception. But, some degree of taking time for you is a necessary component for survival.

Grief can have real physical effects on your body. Your immune system wears down; fatigue and stress render you exhausted and open to illness. Lack of sleep is common for those who are struggling to come to terms with a loss. You engage in a battle to return your life to some sort of normal. As you deal with the next day and the next, the need to take back your life becomes clear. Guilt is a natural by-product of loss and death, but you should never feel guilty for taking back control of your life.

You can begin by taking proactive steps that can help you move forward. Moving forward is not the same thing as forgetting the lost loved one; it is another word for surviving.

- ✚ **Laugh.** Find something to enjoy, even if it is an old movie that will make you laugh. Laughter has real healing power, and learning to do it again is important for your emotional well-being.
- ✚ **Get adequate rest, food and nutrition.** Take care of your physical needs. Eating right and getting plenty of sleep become low priorities for the bereaved, especially when the loss is a child or a spouse. You owe it to yourself to look after your physical health. Feeling better emotionally is tied directly to feeling good physically.

- ✚ **Choose relaxing activities.** Find quiet moments to reflect and relax your mind. Pray, meditate, or simply go for a long walk and find some quiet space for your thoughts. Grief is a powerful emotion; learning to take an emotional time-out is not just a welcome relief, but a necessary part of relieving stress.
- ✚ **Make time to do something that feels good.** Fight through the guilt and participate in an activity you enjoy, even if it just means going out to lunch with friends. You deserve to rest from your grief.
- ✚ **Join a support group.** Reach out to people who understand. Grief support groups provide a wonderful chance to learn from others who understand where you are going, and where you are right now. Talking to people who have been through the same kind of emotional state you are in can increase your understanding of the grief process, and provide hope that it does get better.
- ✚ **Reach out to your faith group (or other form of spiritual support).** Regardless of what form your spiritual connection takes, make time to get back in touch with your own spirit. Finding meaning can help perpetuate a sense of peace about the loss.
- ✚ **Seek and accept help.** Let someone else take care of you. This is not indulgence, nor is it a sign of weakness. Turn the tables on yourself; how would you care for a family member or friend in your position? Allow yourself the same help.
- ✚ **Start a journal.** Writing down your feelings can be very therapeutic. It's a private venue where you can really open up.
- ✚ **Find something that gives you peace, and do it often.** If reading books, writing or reaching out to family members helps, give yourself the permission to spend time in those activities.

The bottom line to recovery is accepting that you deserve to heal. Spending time taking care of you is not selfish or akin to forgetting the one you have so recently lost. It is a necessary part of finding peace and achieving balance.