

**How can**

**P H Y S I C A L  
T H E R A P Y**

**help my child after a burn  
injury?**

## What is Physical Therapy?

Physical Therapy (PT) is a field of health care that focuses on the proper movement and physical function of the body.

Physical therapists (PTs) are trained to understand how the body moves, and how to help people move easier. PTs know all about muscles, bones, and joints and how they all work together to create movement.

PTs can help people become stronger, more flexible, and move with less pain.

PTs use exercises, stretches, and other tools to help people use their bodies to the best of their abilities.



**PTs measure how much joints move and know how to help them work like they should.**



**After a burn injury, the body goes through many changes. Your child may need PT to help them move like they did before they got hurt.**



## My child has a burn injury. What should I expect?

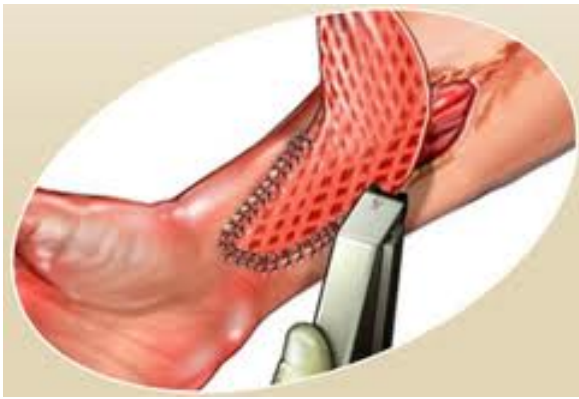
**The medical care team will make sure your child is ok and watch over them closely.**

The medical care team is made up of:

- Doctors
- Nurses
- Respiratory Therapists
- Physical Therapists
- Occupational Therapists
- Recreational Therapists
- Nutritionists
- Chaplains

### **Things to expect:**

- Your child may require surgery such as skin grafting, or other operations to help them heal.
- They will be given fluids through an intravenous line (I.V.) to help them stay hydrated.
- Your child will need extra calories to help them heal, and will need to eat a lot!
- They may develop scar tissue, contractures, or inflammation.
- Your child may need therapy to help them recover.

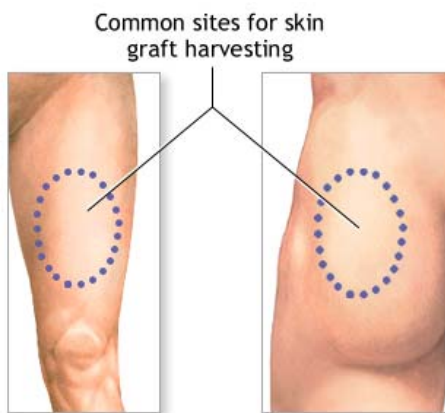


**An autograft to the forearm.**

## What is skin grafting?

Skin grafting is a type of surgery that covers burns to help them heal faster. There are two common types of graft surgeries:

- **Xenograft:** covering the burn with a temporary graft to help it heal faster. A xenograft is made of pig skin, which does not become part of your child's body and comes off as the wound heals. Xenografts are usually less painful and easier to recover from.
- **Autograft:** covering the burn with your child's own skin. This skin is taken from another part of your child's body and placed over the burned area. Your child's skin becomes permanently attached to its new place over the burned area as it heals. This is usually used for deeper burns.



ADAM.

**Common donor sites where skin is taken from**

**Your child's doctor will choose the kind of graft needed based on the type of burn. If you have questions about the different types of grafts or why a certain type has been chosen, please ask!**

## What does PT do for my child if they have a graft surgery?

Your child's PT will help make sure that they are able to move normally again after a graft surgery. The PT will assist your child to do the activities they did before, such as getting out of bed, standing, and walking.

PT will focus on stretching both the graft and donor sites so that the healing skin doesn't become too tight. PT also helps to wrap these areas to prevent swelling.



## Why does my child need to eat so much after a burn injury?

Your child's body is working extra hard to heal itself. They need a lot of energy to rebuild and grow right now. After a burn injury the amount of energy your child's body uses just to rest and sleep is much higher than someone without a burn injury.

After large burn injuries, the body is working so hard to heal that it can start to break down muscle for energy. Losing muscle can make you weak. You can help your child stay strong and healthy by making sure they eat lots of nutritious foods.

Your child should avoid drinking water and soda. They take up room in the stomach but have no nutritional value. Try to get your child to drink milk or juice instead!

If you have questions about the types or amount of food your child should be eating, please ask your child's nurse to talk to a nutritionist.



Your child will need to eat more than usual after a burn injury!

## How can PT help protect my child's muscles?



Physical therapy helps keep your child from losing muscle by making them use it! Exercise and staying active keeps muscles strong and healthy. PTs are trained to keep muscles working properly.

Working with your child's PT and encouraging your child to exercise will help protect their muscles.

Your child's PT will be happy to answer any questions you have about how to keep their muscles healthy.

## Why does my child need intravenous (I.V.) fluids?

Burns can cause dehydration. The amount of fluid in the body needs to be kept at a healthy level to make sure it can function properly.

Providing fluid directly into the veins through an I.V. is the fastest way to make sure your child is well hydrated.



## What is inflammation?

Inflammation is swelling that happens after the body is hurt. Swelling is normal and usually happens after a burn injury. Too much swelling can be painful and slow the burn from healing.

Compression wrappings, such as ACE wraps, help to stop harmful swelling. Keeping the burn ACE wrapped will help your child heal faster and make their injury less painful.



Control the swelling, control the pain!



Raising the burned area can reduce swelling.

The PT may also position your child in bed a certain way to help keep swelling down and make them more comfortable. Raising the burned area up, such as propping up a burned foot on a pillow, helps with swelling.

**Your child's PT will help teach you how to ACE wrap and position the burned area to keep swelling down.**

## What is scar tissue?

Scar tissue is what the body uses to repair injured skin. Healthy, non-injured skin is much more stretchy and flexible than scar tissue. Scar tissue is harder and does not stretch as much as healthy skin.

Think of healthy skin as a rubber band, and scar tissue as a piece of string. Healthy skin (the rubber band) stretches much more than scar tissue (the string).



Burns usually heal with scar tissue. Because scar tissue does not stretch as much as the rest of the skin, it is very important to keep the burn stretched while it heals.

Your child's body is working every hour of every day to close up their wounds and build scar tissue. It's your child versus the scar. They need to work just as hard to stretch as their body is trying to form that scar tissue! Keeping scar tissue stretched while it is being formed will keep your child as flexible as possible and prevent contractures.

Stretching will help lengthen scar tissue. You can do much more with a long piece of string than a short piece!

Stretching can help make sure your child's body makes those strings long enough to keep them moving as well as they did before their burn injury!

## What is a contracture and how can it be prevented?

A contracture is the inability to move properly because of tight tissues, such as skin. This can happen when burned skin scars as it heals and becomes very tight. If the skin becomes tighter than it used to be, it can limit how well your child can move.

For example: If your child has a burned elbow, they may not be able to straighten that arm as much as they used to if they form a contracture.

PT tries to stop contractures from developing by stretching joints that have been burned. Stretching keeps the healing skin from becoming too tight and helps your child stay flexible. The PT may also place your child in a certain position in bed to prevent contractures.



Example of an elbow contracture.

Your child's PT will work with them on stretches and exercises to protect them from contractures. The PT will teach you how to help your child with specific positions, stretches, and exercises so you can keep them as flexible as possible too!

## Why does my child need to do PT when they are in pain?

Unfortunately, burn injuries can be very painful. We wish your child didn't hurt as much as you do, but we know that without moving, stretching, and exercising, your child may have serious complications.

Flexibility, weakness, and swelling will become much worse if left untreated after a burn injury. It often becomes much more painful to move if the burn is not treated with PT right away.

### Why is stretching so important?

Stretching keeps the healing skin from becoming too tight. If the burn heals without being stretched, your child could develop a contracture. Contractures can limit your child's ability to move.

Stretching will help keep your child moving like they did before their burn injury!

There is an important window of opportunity early in the healing process. Scar tissue can be lengthened with stretching in the early stages after a burn injury. It's important to stretch right away to get as much range of motion as possible and keep stretching to prevent losing it!

### Why should my child do PT exercises?

Your child's PT will help them do a variety of exercises and activities that will help them to heal the best that they can. These exercises will help them get back to moving the way they did before their burn.



### Why does my child need to walk right now?

Getting back to the activities your child did before they were burned as soon as possible will help them heal faster. The longer your child waits to start walking again, the harder it will be for them.

Walking will help your child stretch, prevent contractures, and keep their muscles strong. It will be less painful to start walking now than if they wait!

Walking will also help keep your child's heart and lungs healthy. Staying in bed for a long time can make it hard to start moving again. Your child might become very tired or weak if they stay in bed too long without getting up and moving.



Walking is one of the best things your child can do! You can help your child recover faster by encouraging them to walk.



## What physical therapists want you to know:

PT works with your child right after the injury occurs to make sure they stay as strong, healthy, and flexible as possible. We don't want them to lose their ability to move like they did before their burn injury.

We know it is difficult to watch your child hurting, and that you want the very best for them. Please know that we want the best for them too, and that is why we have to ask your child to do things that might be painful. We only want to help them heal the best that they can.

PTs are trained to recognize when your child is hurting, scared, or acting out. We will help them work through behavior or anxiety issues, but will not push them beyond their limits.

Please help us by encouraging your child to work with PT, and by working with us during therapy. Being a part of therapy sessions will help comfort your child and make it easier for them, and for us. We want your help! No one knows your child better than you.

### How can you help your child recover?

You are going to be your child's best therapist! Working with your child on the stretches, exercises, and activities PT teaches you will speed the recovery process. Help them work on PT activities throughout the day to help them heal faster!

Remember to keep working with them even after you leave the hospital! That scar tissue keeps forming and getting tighter. Leaving the hospital doesn't mean the work is done. It's a constant battle to keep stretching that scar tissue so your child doesn't lose the ability to move like they did before. Your child is going to need to keep fighting that scar tissue to prevent contractures and keep as much range of motion as possible. Stretch stretch stretch!!!

Most importantly, give your child lots of love and support!



## Burn injuries are painful in many ways.

Burn injuries can be physically painful, and they can be emotionally painful too. Your child may be feeling sad, upset, angry, or frightened. Their body is going through a lot of difficult and painful changes. They will need extra love, comfort, and support from you right now.

Family support is a big part of healing from a burn injury. Let your child know you are there for them. Let them talk to you about their feelings. Tell them it's ok to feel upset by their injury.

## Emotional Injuries From Burns



Your child may need to talk to someone who is trained to help him or her with his or her feelings. Counselors, psychologists, and psychiatrists may be able to help your child heal emotionally from their injury. Please ask the care team for assistance if you think they may need to speak to someone.

Support groups are also helpful for recovery. Talking to others with burn injuries may be a good way for your child to express their feelings and gain emotional and social support.

Your child is going through a lot right now, but so are you. Burns are hard for parents too! If you, or your child, need to talk to someone about what you are dealing with, please ask us for help! The whole burn team is here for you and is willing to help with the emotional part of your child's injury too! Talk to us!

## Resources that may be of help:

### **The Jaycee Burn Center's support group:**

Burn Camp: Camp Celebrate  
 Carolina Jaycee Burn Center Dept. of Recreational Therapy  
 101 Manning Dr.  
 Chapel Hill, NC 27514  
 (919) 966-3505

### **SOAR: Survivors Offering Assistance in Recovery:**

Shirley Massey, Coordinator of Adult Aftercare/Spiritual Support for Burn Survivors  
 919-966-5015  
[smassey@unch.unc.edu](mailto:smassey@unch.unc.edu)

### **The Phoenix Society for Burn Survivors website:**

[www.phoenix-society.org](http://www.phoenix-society.org)

### **American Burn Association website:**

[www.ameriburn.org](http://www.ameriburn.org)

### **The UNC Department of Psychology Community Clinic:**

<http://psychologyclinic.unc.edu>