



## Circulation Checks

Your child's blood flow (circulation) may be affected by the treatment they had for their injured arm or leg. To prevent more injuries, you need to check the circulation in their fingers or toes.

Some pain is normal after an injury. You can give your child over-the-counter (OTC) medicine like ibuprofen (Motrin® or Advil®) or acetaminophen (Tylenol®) to control the pain. Pain that gets worse and is not controlled could be a sign of poor circulation. Call your child's doctor or health care provider if you are concerned.

Circulation checks must be done:

- 4 times a day for 7 to 10 days. Do these while your child is awake.
- If your child has new complaints in the injured area.
- Before breakfast, lunch, dinner, and at bedtime. Compare the injured side to the uninjured side.

### Circulation Checks

To check circulation, you will be checking the fingers or toes where your child's injury is. For example, if they broke their right arm, you would check the fingers on their right hand.

<b>Color</b>	<p><b>How to check:</b> Compare the color of the right and left hands or the right and left feet.</p> <ul style="list-style-type: none"><li>• <b>Normal:</b> The fingernails or toenails are pink.</li><li>• <b>Not normal:</b> The fingernails or toenails are pale or bluish in color. Have your child wiggle their fingers or toes.</li></ul>
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<b>Temperature</b>	<p><b>How to check:</b> Compare the temperature of the right and left hands or the right and left feet.</p> <ul style="list-style-type: none"> <li>• <b>Normal:</b> The fingers or toes are warm.</li> <li>• <b>Not normal:</b> The fingers or toes are cool or cold. If the fingers or toes are cold, cover them with a blanket and check them in 1 hour.</li> </ul>
<b>Capillary Refill</b>	<p><b>How to check:</b> On the injured limb, squeeze the tip of their finger or toe. You could also press down on their fingernail or toenail. The area you squeezed or pressed should look white or lighter. Let go and see how long it takes for the color to return.</p> <ul style="list-style-type: none"> <li>• <b>Normal:</b> The area turns pink within 3 seconds or less (rapid).</li> <li>• <b>Not normal:</b> The area takes longer than 3 seconds to turn pink (slow).</li> </ul>
<b>Swelling</b>	<p><b>How to check:</b> Compare the injured arm or leg to the uninjured limb.</p> <ul style="list-style-type: none"> <li>• <b>Normal:</b> There may be some swelling within the first 3 to 5 days. Swelling should not be associated with severe pain. Not seeing wrinkles in the skin is also a sign of swelling.</li> <li>• <b>Not normal:</b> There is a large amount of swelling or swelling associated with a lot of pain.</li> </ul>
<b>Numbness or Tingling</b>	<p><b>How to check:</b> Ask your child if their fingers or toes feel like they're asleep (numbness) or like there are pins and needles in them (tingling).</p> <ul style="list-style-type: none"> <li>• <b>Normal:</b> The injured fingers or toes should feel normal.</li> <li>• <b>Not normal:</b> There is numbness or tingling. It is also not normal to have severe pain along with the numbness or tingling.</li> </ul>
<b>Motion</b>	<p><b>How to check:</b> Have your child move their fingers and toes. Watch their fingers or toes to make sure they are moving.</p> <ul style="list-style-type: none"> <li>• <b>Normal:</b> All the fingers or toes on the injured side move.</li> <li>• <b>Not normal:</b> The fingers or toes on the injured side cannot move.</li> </ul>
<b>Pain</b>	<p><b>How to check:</b> Have your child wiggle their fingers or toes. Straighten out and stretch all the fingers toward the back of your child's hand <b>or</b> toes toward the top of their foot.</p> <ul style="list-style-type: none"> <li>• <b>Normal:</b> Some amount of pain even if it's mild to moderate.</li> <li>• <b>Not normal:</b> Pain that is severe or hurts so much that your child can't move their fingers or toes. There may also be severe pain when you try to move your child's fingers or toes.</li> </ul>

- If your child has any results that are **not normal**, raise the injured arm or leg above the level of the heart.
  - Your child needs to lie down flat.
  - Prop the limb up with blankets, firm pillows, cushions, or folded blankets.
    - Their fingers must be higher than their elbow. Their elbow must be higher than their heart.
    - Their toes should be higher than the level of their nose. Use blankets or cushions behind their calf. **Check the circulation again in 1 hour.**
- If there is **swelling**, apply an ice pack to the injured arm or leg. Be sure the ice pack will not leak.
- Depending upon your child's age, it may be hard to detect some symptoms, such as numbness or tingling. In these cases, rely upon the results from the other areas you checked.

## When to Call the Doctor

Call your child's bone doctor (orthopedist) or healthcare provider if:

- The circulation check is not normal and does not get better after 1 to 2 hours with the arm or leg raised.
- Your child's pain is getting worse, they can't move their fingers or toes, or have no feeling in the injured fingers or toes.

## Follow-up

Call the Orthopedic Clinic or health care provider on your child's discharge instructions to schedule a follow-up appointment. If they already have an appointment scheduled, keep it or call to change it.

If you have any questions, please contact your child's healthcare provider or Nationwide Children's Hospital as shown below.

Nationwide Children's Columbus	Nationwide Children's Toledo
<ul style="list-style-type: none"> <li>• Call (614) 722-5175 schedule an appointment.</li> <li>• Sports Medicine at (614) 355-6000.</li> <li>• Evenings, weekends and holidays phone (614)722-2000. Ask for the Orthopedic Resident on call to discuss any symptoms.</li> </ul>	<ul style="list-style-type: none"> <li>• Call (419) 251-2061 to schedule an appointment</li> <li>• Evenings, weekends and holidays phone (567) 290-6543 Ask for the Orthopedic Resident on call to discuss any symptoms.</li> </ul>