



Kids Brain Doc

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Pars Defect (Spondylolysis)

Patient Packet



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Diagnosis: Pars Defect



What is it?

A pars defect (*spondylolysis*) is a small stress fracture or weak area in part of the vertebra in the lower back. It most commonly occurs at the L5 vertebra, just above the pelvis.

Who does it affect?

Most common in children and teenagers who are active in sports, especially involving repeated bending, twisting, or arching of the back. Some children develop a pars defect without a specific injury and may not have any symptoms.



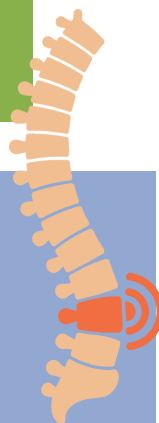
How did my child get it?

It's often caused by repeated stress on the lower back over time, not just one specific injury. It's more common in growing kids, especially those involved in activities with lots of bending, twisting, or arching of the back.



Is it Harmful?

Most pars defects aren't harmful and don't lead to nerve or spinal cord damage. They might cause lower back pain, and if they appear on both sides, the vertebra might occasionally move a bit forward (*spondylolisthesis*).



What is the Treatment?

Most children won't need surgery. Treatment might involve taking a break from some activities, doing physical therapy to build up core and back strength, and sometimes wearing a brace while a new stress fracture heals. Kids can slowly get back to their usual activities once they're pain-free and strong again.



Treatment Pathway: Pars Defect

1 At Diagnosis

- Standing AP/Lateral Lumbar Spine X-rays
- We use them to check your alignment and to see if there is a slip in the spine



2 Next 6 weeks



- **Brace:** Wear an LSO brace at all times. Remove only for showering and hygiene. Sleep in the brace.
- **Activity:** No sports, running, jumping, or activities that bend or twist your back.
- **Physical Therapy (PT):** Start PT now (in brace). Focus on core strengthening. Avoid back bending, twisting, or impact.

3 6-week check-in

- Standing AP/Lateral Lumbar Spine X-rays (out of the brace)
- We use them to check your alignment and make sure there is no change



4 Next 4-6 weeks

If pain-free and stable X-rays:

- Stop the brace
- Continue working with PT to slowly increase your range of motion, strength, and activity
- Gradually return to sports and full activity if you remain pain-free

5 Still having Pain?

- Continue activity modification and PT
- We may adjust the treatment plan or get additional imaging.
- If pain does not improve after 6-12 months the slip worsens, or if nerve symptoms develop, consider surgery.

6 Other

- **Pain Control:** NSAIDs (ibuprofen) or acetaminophen
- **Vitamin D:** check levels with pediatrician for overall bone health/healing
- **Long-term:** yearly X-rays until skeletal maturity



LSO Brace

What is it?

A LSO brace (Lumbo-Sacral Orthosis) is a type of back brace designed to provide support to the lumbar (lower back) and the area where the spine meets the pelvis (*sacrum*)

The LSO helps to stabilize the spine, reduce pain, and improve posture by restricting excessive movement in the lower back, allowing bones and muscles to heal properly.



What does it do?



- Provides support: Helps to stabilize and support the spine, promoting proper alignment and reducing strain on injured areas.
- Limits movement: Restricts unnecessary movement in the back to prevent further injury and facilitate healing.
- Reduces pain: Helps to alleviate discomfort or pain by limiting the movement of the spine and encouraging proper posture.
- Aids in recovery: Encourages healing following injury by preventing spinal deformities or misalignment.

Why is it Important?



- Healing: Helps prevent further injury to the spine and facilitates the healing process.
- Provides stability: Supports the lower back, which can reduce strain on muscles and joints.
- Pain relief: Offers support to areas of the spine that are prone to discomfort or pain.
- Prevention of complications: Wearing the brace as instructed ensures that the spine remains stable, preventing complications from developing during recovery.

6

Steps on how to wear the LSO Brace

1 Prepare the Brace

- Ensure the LSO is clean and free from any dirt or debris.
- Wear a tight, clean T-shirt underneath.



2 Position the Brace

- Place the brace around your child's waist and lower back, centered over the spine.
- The lower portion should fit securely around the pelvis. Follow the orthotist's markings or instructions for the exact position.
- Make sure the brace is not too high, too low, or twisted.

3 Secure the Straps

- Fasten the brace and tighten the straps as demonstrated by your orthotist.
- The brace should fit snugly without pinching, causing pain, or restricting breathing.
- Check that the straps do not dig into your child's skin or create pressure points.

4 Adjust for comfort

- Check that your child can breathe comfortably while wearing the brace.
- Make sure the brace does not dig into the ribs, hips, or abdomen.
- Avoid bending or twisting the lower back while adjusting the brace.

5 Double check for fit

- Ask your child to stand up and check their posture. The brace should support the spine without causing discomfort. Make sure it stays in place and doesn't shift during normal movements.



6 Monitor skin and comfort

- Check the skin underneath the brace regularly for any signs of irritation, redness, or sores. If you notice any skin issues, contact the orthotist for guidance.

Recovery & Follow-Up

ACTIVITY RESTRICTIONS

- 0-6 weeks: Wear LSO brace at all times. No sports, running, jumping, or heavy lifting.
- 6-12 weeks: If pain-free and X-rays are stable, stop the brace and work with PT to increase motion, strength, and activity.
- 10-12 weeks: When pain-free with normal movement and strength, return to FULL ACTIVITY.

HOME CARE

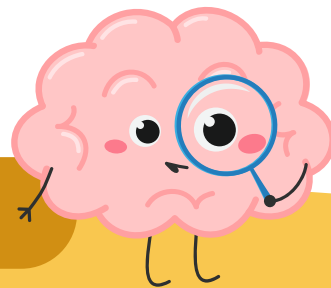
Can return to school when pain is controlled.
No backpacks or PE/sports.

FOLLOW-UP

- At Diagnosis: X-rays while standing
- 6 weeks: X-rays while standing up
- Annual if vertebral slip is present until skeletal maturity: 16 for girls, 18 for boys



LONG-TERM CARE



Most children with pars defects return to normal activities and sports without surgery. Once your child has finished growing and any vertebral slip remains stable, routine X-rays are usually no longer needed.

Call us sooner for:

- Back pain that persists or gets worse
- Leg pain, numbness, tingling, or weakness
- Changes in bladder or bowel function, such as incontinence or difficulty urinating