Pediatric Spine Program

Gillette Children's treats the majority of children in Minnesota with spinal conditions. Our 6 spine surgeons perform more pediatric scoliosis surgery than any other hospital in the 5-state area. Because we see the full spectrum of spine cases, from mild to severe, all patients benefit from our depth of experience, no matter their complexity.

Spine Conditions We Treat:
- Scoliosis
- Spondylolysis and spondylolisthesis
- Kyphosis and Scheuermann's disease
- Spine fractures

“We are the first hospital in the nation to install EOSedge™, a low dose 3D imaging system which reduces radiation exposure to our spine patients and offers state-of-the-art imaging and planning tools to our surgical team.”
- Joseph Perra, MD

Scoliosis Treatments

Bracing
Hypercorrective nighttime: custom made, wear while sleeping.
Thoracolumbosacral orthosis (TLSO): custom made, highly effective, wear 18 hours per day.

Physical Therapy
Scoliosis-specific exercise: based on the Schroth Method, this customized exercise program may reduce the symptoms of scoliosis.

Surgery
Vertebral body tethering (VBT): less invasive procedure, uses the body's own growth to correct the deformity by slowing growth on one side allowing the other to catch up, 6-week recovery.
Spinal Fusion: restores alignment to the spine and maintains that alignment while bones heal together, 6-month recovery.
Magnetically controlled growing rods: for those with early onset scoliosis, helps control curve while allowing continued growth. Lengthened during routine outpatient visit with non-invasive remote control.
Vertical expandable prosthetic titanium rib (VEPTR): for patients with severe curves that cause thoracic insufficiency syndrome.
Referral Guidelines

Scoliosis Signs and Symptoms

How to Screen:
Adam’s Forward Bend test at every well child check:
• If >7° rotation, PA and lateral full spine x-rays recommended
• If curve on x-ray <10°, may observe clinically
• If curve on x-ray 10°-15°, repeat x-rays in six months

When to Refer:
• X-ray shows curve >15°
• Repeat x-ray shows increase in curve
• X-ray shows abnormal spine anatomy

Our providers are available to consult or to co-manage with a primary care provider at any point in a patient’s curve progression.

Common Treatment Recommendations

<table>
<thead>
<tr>
<th>Degree of Curve</th>
<th>Course of Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10°</td>
<td>Observe clinically over time</td>
</tr>
<tr>
<td>10-20°</td>
<td>Periodic x-rays</td>
</tr>
<tr>
<td>20-45°</td>
<td>TLSO or Nighttime bracing</td>
</tr>
<tr>
<td>&gt;45°</td>
<td>Surgical intervention; fusions at any skeletal maturity</td>
</tr>
<tr>
<td>Any curvature</td>
<td>SCHROTH (scoliosis-specific exercises)</td>
</tr>
<tr>
<td>Further evaluations needed to qualify</td>
<td>VBT (vertebral body tethering); skeletally immature</td>
</tr>
</tbody>
</table>

OUR PROVIDERS
Abby Anderson, PA-C
Eduardo Beauchamp, MD
Amy Jo Beebe, MA, APRN
Tenner Guillaume, MD
Danielle Harding, PA-C
Daniel Miller, MD
Kyle Miller, MD
Megan Moffatt, MS, APRN
Katie Peltz, PA-C
Joseph Perra, MD
Laura Tillman, DNP, APRN
Walter Truong, MD