

orthopedics at Dayton Children's

reaching new heights in orthopedic care

Just like we want our kids to shoot for the stars, Dayton Children's orthopedics division is transforming care to reach new heights in treating a broad range of orthopedic conditions, from simple fractures to the most complicated congenital anomalies. By leading the way in innovative procedures and expanding services, Dayton Children's is focused on serving each child's individual needs and getting back to normal activities quickly and safely.

by the numbers

For a smaller children's hospital, Dayton Children's has a tremendous volume of orthopedic cases.



about us

Dayton Ohio	 1967 founded
181 beds	 88,020 ED visits Level I pediatric trauma center



masters in innovative care

Just like the Wright Brothers, the Dayton natives who changed the world with the airplane, Dayton Children's is pioneering new ways to elevate orthopedic care, making it safer, faster and easier.

First pediatric hospital in Ohio and one of 20 pediatric hospitals nationally to offer patients [ApiFix's Minimally Invasive Deformity Correction \(MID-C\)](#). ApiFix is a posterior dynamic deformity correction system device that allows our surgeons to perform a surgical curve correction while retaining spine flexibility with a least invasive approach. Dr. Jones and Dr. Albert are principal investigators for ApiFix at Dayton Children's.

[Read more.](#)

Scolio-Pilates® program.

The only children's hospital in the country to offer scolio-pilates®, a three-dimensional exercise program for scoliosis used during the "wait and see" period to help children gain more control of their bodies, helping them become stronger and move easier.

[Read more.](#)

First in the world Band-loc spinal surgery pioneered by Dr. Michael Albert, division chief of orthopedics at Dayton Children's. BandLoc is a specialized sublaminar polyester implant, similar to a zip tie, which is especially useful in improving spinal deformity and correction in children with weak pedicles. [Learn more.](#)

Advancing through technology Dr. Albert was one of the first surgeons in Ohio to use 3D printing technology called FIREFLY® Pedicle Screw Navigation Guides by Mighty Oak Medical through partnership with OrthoPediatrics. The technology prints a scale model of the spine to plot the most efficient placement of screws before the surgery, leading to safer, more accurate and faster operations.

[Read more.](#)

Dr. Albert also serves as the surgeon advisor for AMB Surgical II, LLC, a medical device developer and owner of the FLYTE™ Smart Automated Growing Rod (SAGR) technology.

This device uses smart technology and specialized mechanics to help lengthen and straighten spines and limbs, reducing repeated surgeries to correct limb and spinal deformities.

Member of Setting Scoliosis Straight

The program offers a quality improvement/assessment registry to help optimize surgeon performance and improve patient outcomes in the surgical treatment of pediatric spinal deformity. Surgeon participants receive real-time reporting thru 'Dashboard Reports,' which contain comparative practice data to support the identification of best practices and shared learning.

EOS low dose, 3-D imaging system delivering "kid-sized" doses of radiation, which is important because the growing tissues in children's bodies are especially sensitive.

extensive programs for comprehensive care

- gait and motion analysis lab
- sports medicine program
- female athlete program
- orthopedic rehabilitation center
- neuromuscular and syndromic disorders program
- hand care
- limb lengthening
- hip preservation program
- fetal/newborn care center
- virtual visits

getting moving with magnets

New techniques using magnets result in a less invasive process for lengthening. Our surgeons now use adjustable intramedullary nail incorporating remote control technology using magnets which eliminates the need for an external fixation frame or external fixator for older patients. Therefore, we can reduce the rate of infections and complications that are commonly caused by external fixation frames.