



Plastic and Reconstructive Surgery

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Pediatric Reconstructive Surgery

If your child is born with a disfiguring condition or has an injury that leaves permanent damage, your doctor will help you determine the best treatment available. In some cases, reconstructive surgery may be the best option for restoring the mobility, functionality and appearance to the part of your child's body affected by his or her condition or injury.

The timing of your child's surgery and the number of surgeries necessary will depend on your child's condition. Options may include surgery within the first year of life, delaying surgery or treatment over a series of surgeries.

Conditions We Treat

- **Obstetric [brachial plexus injuries](https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/nervous_system_disorders/brachial_plexus_injuries_134,34)** - (https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/nervous_system_disorders/brachial_plexus_injuries_134,34), often occurring after an abnormal or difficult birth
- **Breast anomalies** (e.g., extra nipples, juvenile hypertrophy, [gynecomastia](https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/mens_health/gynecomastia_85,p01118) - (https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/mens_health/gynecomastia_85,p01118), Poland's syndrome)
- **Cleft Lip and Palate** - (https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/plastic_surgery/cleft_lip_cleft_palate_90,P01847)
- **Congenital hand** - (https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/plastic_surgery/congenital_hand_deformities_85,p01120) and **foot anomalies** (e.g., syndactyly, polydactyly, [amniotic band syndrome](https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/pregnancy_and_childbirth/amniotic_band_syndrome_2,amnioticbandsyndrome) - (https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/pregnancy_and_childbirth/amniotic_band_syndrome_2,amnioticbandsyndrome), hypoplastic thumb, [trigger thumb](https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/arthritis_and_other_rheumatic_diseases/tendonitis_85,p00069), - (https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/arthritis_and_other_rheumatic_diseases/tendonitis_85,p00069) cleft hand)
- **Genitourinary reconstruction**
- **Genital reconstruction** for infants born with genital defects requiring surgery
- **Melanocytic nevi**
- **Pediatric cranial reconstruction** - (<https://www.hopkinsmedicine.org/johns-hopkins-childrens-center/what-we-treat/specialties/neurosurgery/programs-centers/pediatric-cranial-reconstruction-center.html>)

- **Scars** - (https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/dermatology/scars_85,p00313)
- **Spinal anomalies** (e.g., myelomeningocele)
- **Tumor reconstruction** (e.g., [neurofibromatosis - \(https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/orthopaedic_disorders/neurofibromatosis_22,neurofibromatosis\)](https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/orthopaedic_disorders/neurofibromatosis_22,neurofibromatosis))
- **Vascular anomalies** (e.g., [hemangiomas - \(https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/pediatrics/hemangioma_22,hemangioma\)](https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/pediatrics/hemangioma_22,hemangioma), vascular malformations, lymphatic malformations)
- Wounds (e.g., bites, [burns - \(https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/physical_medicine_and_rehabilitation/burns_85,p01146\)](https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/physical_medicine_and_rehabilitation/burns_85,p01146)))

Patient Resources

- Visit our Health Library to learn more about [brachial plexus injuries - \(https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/nervous_system_disorders/brachial_plexus_injuries_134,34\)](https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/nervous_system_disorders/brachial_plexus_injuries_134,34), [craniosynostosis - \(https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/plastic_surgery/craniosynostosis_90,P02595\)](https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/plastic_surgery/craniosynostosis_90,P02595) and [Pierre Robin sequence - \(https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/plastic_surgery/Pierre_Robin_Sequence_22,PierreRobinSequence\)](https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/plastic_surgery/Pierre_Robin_Sequence_22,PierreRobinSequence).
- Visit the [Neurofibromatosis Center - \(https://www.hopkinsmedicine.org/neurology_neurosurgery/centers_clinics/neurofibromatosis/\)](https://www.hopkinsmedicine.org/neurology_neurosurgery/centers_clinics/neurofibromatosis/) to learn more about neurofibromatosis.

[Request an Appointment -](https://www.hopkinsmedicine.org/plastic_reconstructive_surgery/patient_information/appointments.html)

[\(https://www.hopkinsmedicine.org/plastic_reconstructive_surgery/patient_information/appointments.html\)](https://www.hopkinsmedicine.org/plastic_reconstructive_surgery/patient_information/appointments.html)

Treatment

For the treatment of these conditions, a pediatrician may recommend surgery. When the surgery is done depends on the exact condition and the needs and situation of the child.

Cleft Lip and Palate

To repair a cleft lip, the plastic surgeon uses a special technique to suture the two sides of the lip together, leaving a scar that blends into the lip. To repair a cleft palate, the plastic surgeon uses tissue from either side of the mouth to fill in the gap, rebuilding the palate.

Surgery is generally done within the first 12 months after birth. Our reconstructive surgeons can often repair the lip or palate with one surgery, though in some cases, two may be required.

Learn more about surgery for cleft lip and palate at The Johns Hopkins Hospital.

Ear Surgeries

Reconstructing the ear to make it a normal size will likely require three surgeries over a period of time. In some cases, a child may need an artificial or prosthetic ear, which also requires several surgeries.

Repairing the ear can take anywhere from two to four surgeries. The reconstructive surgeon may recommend using the child's ribs to reconstruct the ear or may decide that an alloplast — synthetic material — would be best.

Jaw Surgeries

For a child born with a small jaw or receding chin, a reconstructive surgeon can correct the condition through several kinds of surgery. Most commonly, the reconstructive surgeon will cut the jawbone, a procedure known as an osteotomy, to reposition it using titanium screws and plates, eliminating the need to wire the teeth together.

Another technique, distraction osteogenesis, splits the jawbone and then moves the jawbone slowly by inserting a screw either inside the mouth or outside and turning it periodically over a few weeks. The advantage of the distraction technique is that it simultaneously increases bone length and the volume of the soft tissue around the bones.

The plastic surgeon may also create a new jawbone structure using bone grafts from the ribs, hips or skull, or alloplastic grafts, which are created from synthetic materials.

Learn more about surgery for [jaw problems at The Johns Hopkins Hospital - \(https://www.hopkinsmedicine.org/plastic_reconstructive_surgery/specialty_services/reconstructive_surgery/jaw_problems.html\)](https://www.hopkinsmedicine.org/plastic_reconstructive_surgery/specialty_services/reconstructive_surgery/jaw_problems.html).

Obstetric Brachial Plexus Injury

In infants, brachial plexus injury most often occurs during an abnormal or difficult birth, causing damage to the brachial plexus nerves (shoulder dystocia). Depending on the injury, a baby may be diagnosed with different kinds of palsy, including Erb's palsy and Klumpke's palsy. In about one in 10 cases, the child will need some kind of surgery to repair the nerves. Generally, surgeons recommend that the surgery be done when children are between the ages of 4 and 9 months.

[Visit our Health Library to learn more about brachial plexus injuries - \(http://www.hopkinsmedicine.org/healthlibrary/conditions/adult/nervous_system_disorders/brachial_plexus_injuries_134,34/\)](http://www.hopkinsmedicine.org/healthlibrary/conditions/adult/nervous_system_disorders/brachial_plexus_injuries_134,34/).

Pediatric Genital Reconstruction

Several of our reconstructive surgeons specialize in working with children. When an infant is born with genital defects that require surgery, our surgeons will work with parents and the referring physician to determine if surgery is needed. They also consult and work with other specialists, such as urologists and gynecologists. A number of innovative techniques are available to reconstruct genital defects, including tissue transfer.

[Visit our Health Library to learn more about genital reconstruction - \(http://www.hopkinsmedicine.org/healthlibrary/test_procedures/urology/_22_genitalandpelvicreconstruction/\)](http://www.hopkinsmedicine.org/healthlibrary/test_procedures/urology/_22_genitalandpelvicreconstruction/).

Why choose Johns Hopkins?

At Johns Hopkins, our reconstructive pediatric surgeons have done hundreds of surgeries on children of all ages to restore appearance and functionality. They have learned about and, in many cases, taught the latest and most effective surgical techniques. In addition, because they work at Johns Hopkins, they can call on any other kind of medical expertise needed right at the facility, from pediatricians and orthopaedists to ear, nose and throat specialists (otolaryngologists) and dermatologists.

Our Pediatric Reconstructive Surgeons

Our surgeons are devoted to their profession and to providing attentive patient care. From the first consultation to the final check-up, our reconstructive surgeons make themselves available and accessible to patients and their families.

Meet Our Physicians:

[Redett, Richard James, M.D. III -](#)

[\(https://www.hopkinsmedicine.org/profiles/results/directory/profile/0008095/richard-redett\)](https://www.hopkinsmedicine.org/profiles/results/directory/profile/0008095/richard-redett)

[Steinberg, Jordan Philip, M.D., Ph.D. -](#)

[\(https://www.hopkinsmedicine.org/profiles/results/directory/profile/10004023/jordan-steinberg\)](https://www.hopkinsmedicine.org/profiles/results/directory/profile/10004023/jordan-steinberg)



Our Patient Care

Using our medical expertise and advanced diagnostic techniques, we provide compassionate and expert care that addresses the physical and emotional needs of our patients and their families.

- Watch to [learn why one Baltimore family chose Johns Hopkins -](#) [\(https://www.youtube.com/watch?v=kvQxxgYcurl\)](https://www.youtube.com/watch?v=kvQxxgYcurl) for the treatment of their children's cleft lip.
- When Guy was born with a bilateral cleft lip and palate, Felicia and Gavin didn't know what to expect. [Read their testimonial of Guy's experience with the cleft clinic at Johns Hopkins -](#) [\(https://www.hopkinsmedicine.org/johns-hopkins-childrens-center/what-we-treat/specialties/reconstructive-plastic-surgery/cleft-craniofacial-center/patient-stories/guys_story.html\)](https://www.hopkinsmedicine.org/johns-hopkins-childrens-center/what-we-treat/specialties/reconstructive-plastic-surgery/cleft-craniofacial-center/patient-stories/guys_story.html).

