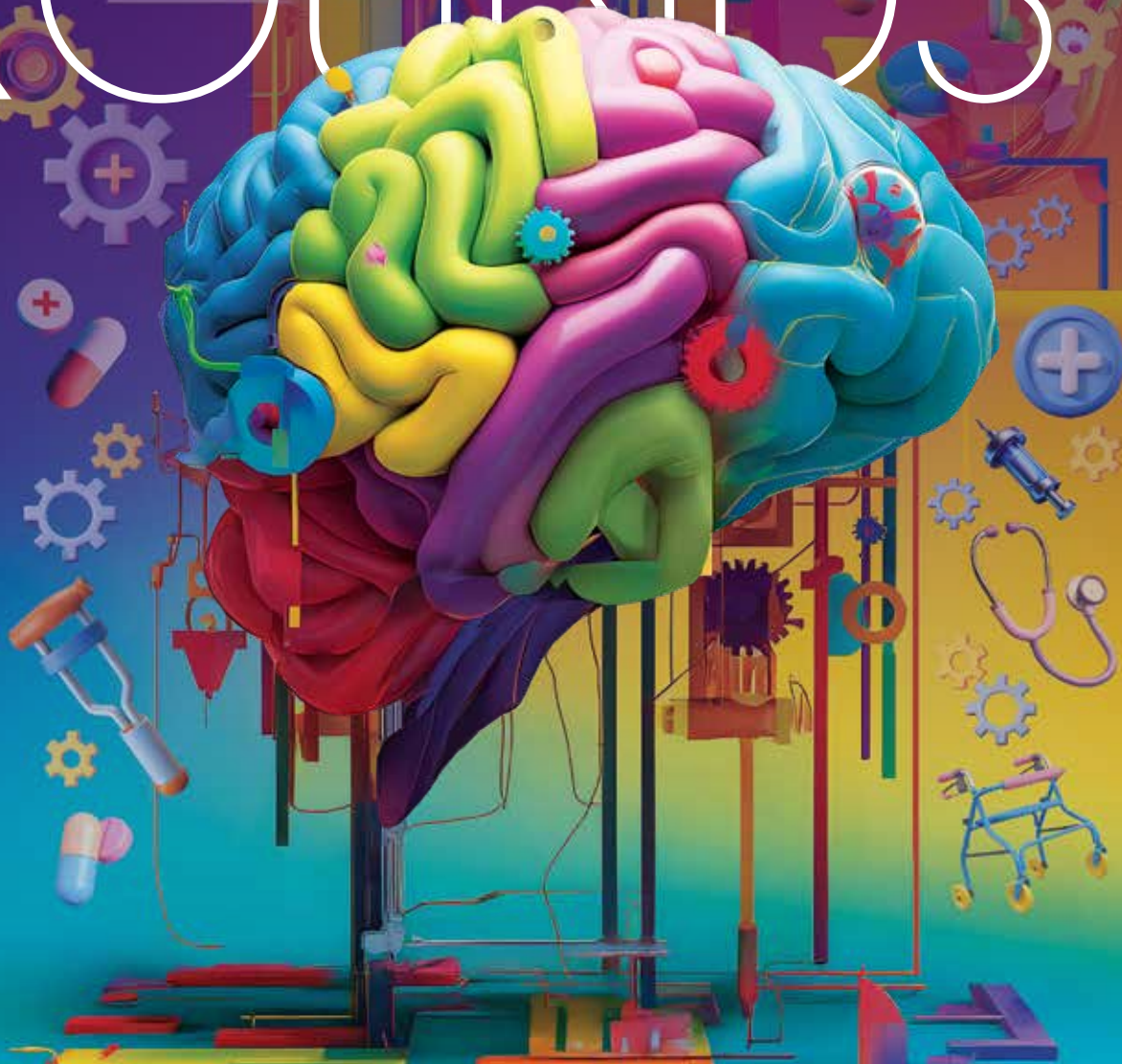


Sharing Innovations and Insights With Our Partners in Care

PEDIATRIC ROUNDS



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Elevating Care Across the Continuum

Prevention, precision, performance and partnership driving the next chapter of pediatric innovation

BY JASON A. JARZEMBOWSKI, MD, PHD



Advancing pediatric care requires more than clinical excellence.

It demands prevention before harm occurs, early diagnosis when it matters most, thoughtful guidance through developmental milestones and collaboration that expands what is possible. This issue of Pediatric Rounds highlights programs across our practice that reflect this broader vision.

Our cover story explores how early recognition and coordinated multidisciplinary care improve outcomes for children with cerebral palsy, reinforcing the importance of timely referral and proactive management. On page 17, you will

learn how the Children's Wisconsin Awareness to Action Program is strengthening child sexual abuse prevention through purpose and partnership by focusing on adult responsibility and systems-based safeguards that keep children safe before harm occurs.

Our Dermatology Program (page 14) offers practical, age-appropriate dermatology guidance that helps teens and families navigate puberty-related skin changes amid social media trends. And

on page 3, you will see how a Children's Wisconsin program supports pediatric cancer survivors in safely returning to physical activity and building lifelong healthy habits.

On page 16, you will learn more about how our dedicated robotic surgery program is advancing minimally invasive care in pediatric urology, improving recovery and surgical precision. Lastly, on page 4, you will read about Forward Pediatric Alliance, a bold collaboration uniting two leading heart programs to elevate congenital care across the Midwest.

Together, these stories demonstrate how Children's Wisconsin is strengthening care at every stage of childhood, combining prevention, innovation and partnership to deliver better outcomes for kids and their families.

JA Jarzembowski, MD, PhD

Jason A. Jarzembowski, MD, PhD, Chief Executive Officer, Children's Specialty Group; Medical Director, Pathology and Laboratory Medicine, Children's Wisconsin; Vice Chair and Professor, Department of Pathology and Senior Associate Dean of Clinical Affairs, Medical College of Wisconsin



Team Survivors: Movement Matters Supports Return To Active, Healthy Lifestyle

Promoting safe return to physical activity and nutrition in pediatric cancer survivorship

For pediatric cancer survivors, one of the biggest challenges is returning to physical activity after treatment. Movement Matters is a free, 12-week physical activity and nutrition program for patients ages 9-17 with a cancer or bone marrow transplant diagnosis. The program serves as a bridge between formal therapy models and independent physical activity.

“Many of these kids experience significant deconditioning during treatment and miss key developmental opportunities related to movement,” said Trina O’Malley, MEd, LAT, Athletic Trainer, Sports Medicine at Children’s Wisconsin. “Movement Matters helps reintroduce physical activity in a way that is safe, supportive and less intimidating.”

PROGRAM STRUCTURE AND ACTIVITIES

The program meets weekly and participants engage in a variety of activities that incorporate movement and nutrition education like yoga, pickleball, disc golf, snowshoeing, visiting a local farmers market and making trail mix and overnight oats. Participants receive age-appropriate education from a sports medicine registered dietitian, learning how to properly nourish and fuel their body.

CLINICAL INTEGRATION AND OUTCOMES

Movement Matters is intended for patients who are off treatment or in maintenance therapy. Participants must receive clearance from their primary oncologist or bone marrow transplant specialist. While the program does not replace physical or occupational therapy, it supports patients who may not qualify for services but still benefit from consistent physical movement.

ANDRESWD VIA GETTY IMAGES



The program complements survivorship care by addressing long-term risks common in pediatric oncology populations, including cardiovascular disease and endocrine disorders. Movement Matters helps make sure participants get physical activity and recognize how their bodies work in a safe way. Although Movement Matters has completed only its inaugural season, early results are encouraging. The program demonstrated high levels of participant engagement and enjoyment, with positive feedback highlighting a supportive, non-competitive environment that fosters confidence, curiosity and enjoyment of physical activity.

“One of the biggest things I’ve seen out of this program is the confidence that these kids get,” said O’Malley. “It’s incredible to see how they come in, so shy and not wanting to talk, but then their confidence exponentially evolves within this program.”

HOW TO REFER

Movement Matters is available to patients in the MACC Fund Center for Cancer and Blood Disorders. Referrals are coordinated through the Children’s Wisconsin Survivorship Team. Providers and families may also contact teamsurvivors@childrenswi.org for more information.

By combining physical activity, nutrition education and peer support, the program helps pediatric survivors build strength, confidence and habits that support lifelong health.



Trina O’Malley, MEd, LAT, Athletic Trainer, Sports Medicine at Children’s Wisconsin

To learn more about Team Survivors: Movement Matters, visit childrenswi.org/survivorship.

One Program, Two Campuses: Working Together To Elevate Pediatric Heart Care in the Midwest

The Wisconsin state motto is “Forward,” and that ambitious spirit of progress powers Forward Pediatric Alliance, an innovative joint venture for pediatric and congenital heart care services at Children’s Wisconsin and UW Health Kids.

The goal: to enhance the already excellent pediatric and congenital heart care available to patients in Wisconsin, from fetal life through adulthood, by delivering outstanding clinical outcomes, driving research and training the next generation of health care providers.

“Forward Pediatric Alliance is strengthening two well-established congenital heart programs to advance the care we provide,” said Nicholas Peterson, Executive Director of the Herma Heart Institute at Children’s Wisconsin and Administrator of Forward Pediatric Alliance.

“We really want to be a force for congenital heart care in the Midwest,” added Kiefer Jundt, MHA, Director of the UW Health Kids Congenital Heart Program.

In the past, providers from both Children’s Wisconsin and UW Health Kids occasionally discussed complex cases, but with the creation of Forward Pediatric Alliance, the two programs now have the opportunity to formalize collaboration in a way that enhances capabilities while maintaining each organization’s independence.

Together, the initiative is able to offer more collective expertise, more innovation and more support — creating a stronger, more connected experience for the patients and families we serve.

“This is the right thing for not just our institutions, but for kids with congenital heart disease,” said Jundt.

COLLABORATION THAT EXPANDS EXPERTISE

Forward Pediatric Alliance launched in January 2025 with an initial 10-year agreement. While implementation will ramp up over the first three years, patients are already benefiting in tangible ways, including weekly joint care conferences between the teams.

“Now, whether you refer your patient to Children’s Wisconsin or UW Health Kids, the entire broader team is going to be involved in their care, so you don’t have to think about where you should send your patient,” said Peterson. “We are here to help make sure that the best providers in the state — in the Midwest — are taking care of your patient.”

That collective expertise is particularly an asset for rare and complex cases, which might have previously motivated providers to seek care at higher-volume centers in other states.

“Working together really allows us to put more brains around the table and figure out complex problems,” said Peterson.



EXPANDING CARE ACROSS THE LIFESPAN

Forward Pediatric Alliance is also an opportunity to grow our programs’ strengths, which include complex neonatal care, pulmonary hypertension and adult congenital heart disease.

“With the way that congenital heart care has advanced over the past 20, 30, 40 years, these kids that once didn’t have a great prognosis now grow up and live whole, healthy lives,” said Jundt. “And they grow into adults and need cardiologists that understand their congenital anomalies. Continuing to invest in and build adult



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evaluation of quality and outcomes, potentially leading to faster improvements in care.

"We can really look at statistics and at patterns across a broader number of patients over time," said J. Carter Ralphe, MD, Co-Director of the Congenital Heart Program at UW Health Kids, Professor of Pediatric Cardiology and Division Chief at University of Wisconsin School of Medicine and Public Health. "We're going to be able to track performance, building upon skills and strengths of both campuses and combining them in novel ways."

TRAINING THE NEXT GENERATION

The dynamic possibilities of Forward Pediatric Alliance could make both institutions even more successful in attracting and retaining top medical talent, including trainees and junior faculty, program leaders note.

"Being able to collaborate means that we can recruit the best and brightest as well as let those best and brightest really focus on what matters most to them in patient care," said Peter Bartz, MD, Co-Director of the Herma Heart Institute at Children's Wisconsin and Professor and Chief of pediatric cardiology at the Medical College of Wisconsin. "And then we can ensure that patients get the right care, at the right place, at the right time."



Nicholas Peterson, Executive Director of the Herma Heart Institute at Children's Wisconsin and Administrator of Forward Pediatric Alliance



Kiefer Jundt, MHA, Director of the UW Health Kids Congenital Heart Program



J. Carter Ralphe, MD, Co-Director of the Congenital Heart Program at UW Health Kids, Professor of pediatric cardiology and Division Chief at University of Wisconsin School of Medicine and Public Health



Peter Bartz, MD, Co-Director of the Herma Heart Institute at Children's Wisconsin and Professor and Chief of pediatric cardiology at the Medical College of Wisconsin

congenital services will be a great strength of our program."

Forward Pediatric Alliance also creates powerful new opportunities for research collaboration. The Children's Wisconsin and UW Health Kids teams meet for a monthly research forum to learn more about the innovation happening on both campuses, and researchers who study coarctation of the aorta have already begun working together to leverage the unique resources at both sites. The increased scale of the combined patient populations allows for a more scientific

Adolescent Medicine Menstrual Management Program Expands Access To Patient-Centered Care

A multidisciplinary approach supporting adolescents with menstrual conditions

Menstrual concerns are among the most common yet often under-addressed health issues affecting adolescents. At Children's Wisconsin, the Adolescent Medicine Menstrual Management Program provides comprehensive, patient-centered evaluation and treatment for patients experiencing painful, heavy, irregular, absent or medically complex periods.

The program is part of Adolescent Medicine's broader reproductive health care offerings and serves patients from menarche through early adulthood for those who continue to receive care within the Children's Wisconsin system.



Elizabeth Hovel, MD, Adolescent Medicine Physician at Children's Wisconsin and Assistant Professor at the Medical College of Wisconsin

A BROAD SCOPE OF MENSTRUAL CONCERNS

Referrals to the Adolescent Medicine Menstrual Management Program span a wide range of concerns. Patients are commonly referred for periods that are painful, heavy, irregular or absent, as well as for menstrual suppression when bleeding is medically inadvisable such as for those with bleeding disorders or undergoing cancer treatment.

The team also evaluates and manages menstrual-related conditions such as premenstrual syndrome (PMS), premenstrual dysphoric disorder (PMDD), menstrual migraines, catamenial epilepsy, polycystic ovary syndrome (PCOS) and chronic pelvic pain.

Providers are encouraged to refer patients even when menstrual symptoms are not immediately medically concerning but significantly impact quality of life. "These are often issues that significantly disrupt daily life, even when they are not immediately medically dangerous," said Elizabeth Hovel, MD, Adolescent Medicine Physician at Children's Wisconsin and Assistant Professor at the Medical College of Wisconsin. "If something about a patient's periods is bothersome to them, that alone is a reason to refer."

COMPREHENSIVE EVALUATION WITH TIME TO LISTEN

A core pillar of the program is its comprehensive diagnostic approach. Initial visits prioritize a detailed medical and menstrual history and an in-depth discussion of patient priorities and goals. This thorough interview alone can often clarify the underlying cause of symptoms.



When indicated, evaluation may include laboratory testing for endocrine disorders or bleeding conditions, and ultrasound to assess for anatomic causes of menstrual irregularities.

INDIVIDUALIZED, PATIENT-CENTERED TREATMENT

Shared decision making and reproductive justice are foundational to the program's treatment planning. Care teams focus on understanding what symptoms most affect the patient's daily life, and which treatment options align with their preferences, values and cultural considerations. Treatment plans are tailored to each patient with an emphasis on improving quality of life.

Hormonal therapy is the primary treatment method, using a range of options including pills, patches, vaginal rings, shots and long-acting reversible contraceptives. While these therapies are often associated with

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contraception, they are among the most effective tools for treating menstrual disorders. However, non-hormonal options are available when appropriate.

"We are very intentional about providing unbiased education and ensuring patients and families feel heard," said Dr. Hovel. "Our role is to help patients choose what works best for them, not to direct them toward a specific method."

Patients are reassured that treatment plans can evolve over time and that methods, including long-acting options, can be discontinued or changed at any time.

COORDINATED CARE FOR COMPLEX PATIENTS

The Adolescent Medicine Menstrual Management Program frequently cares for adolescents with complex medical needs,

chronic conditions or developmental disabilities. In these cases, adolescent medicine providers work with primary care clinicians and subspecialists to develop safe, coordinated care plans.

The program also offers multidisciplinary clinics that allow patients to see multiple specialists in a single visit. These include a combined Polycystic Ovary Syndrome Clinic with Endocrinology and the Menorrhagia Clinic with Hematology for patients with heavy menstrual bleeding or bleeding disorders.

In addition, adolescent medicine providers are embedded within oncology and survivorship settings to deliver integrated reproductive health care for patients undergoing, recovering from or thriving after cancer treatment.

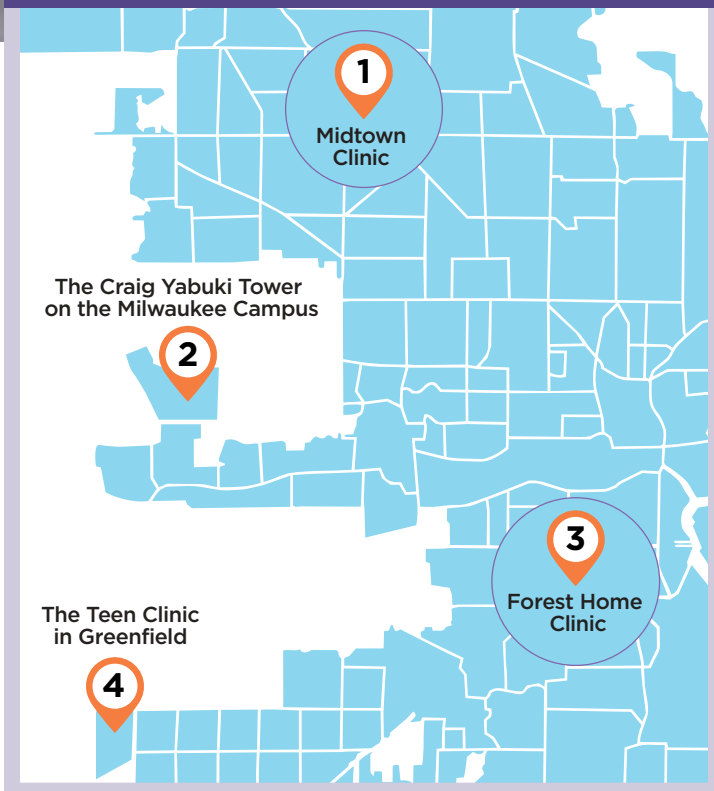
Primary care providers remain essential partners in menstrual health care. The adolescent medicine team encourages referrals and consultations, frequently supporting PCPs who resume management once diagnostic evaluation is complete.

"We see this as a partnership," said Dr. Hovel. "Whether we're directly managing care or supporting a primary care provider, our goal is to make sure adolescents receive thoughtful, high-quality menstrual health care."

For more information about the Adolescent Medicine Menstrual Management Program, visit childrenswi.org/adolescenthealth.

Growing Access Across Wisconsin

As the program grows to better meet the needs of patients and referring providers, menstrual management services are now offered across multiple Children's Wisconsin locations including:



Updated Guidelines Shift Genetic Evaluation for Global Developmental Delay and Intellectual Disability

Earlier use of genomic testing leads to faster, more accurate diagnoses

Recent updates to national guidelines now support earlier genetic testing in children with global developmental delay (GDD) and intellectual disability (ID). The American Academy of Pediatrics (AAP) and the American College of Medical Genetics and Genomics (ACMG) now recommend exome or genome sequencing as a first-tier test for most patients with unexplained GDD or ID, citing higher diagnostic yield and greater cost-effectiveness when testing is performed earlier in the diagnostic process.

These updates reflect rapid advances in genomic medicine and a growing body of evidence demonstrating that earlier identification of an underlying genetic diagnosis can shorten the diagnostic journey for families and influence clinical care.

WHY GENETICS MATTER

GDD and ID are among the most common indications for genetic evaluation. Genetic etiologies including chromosomal, monogenic and complex genetic conditions account for up to 50% of identified causes.

While prenatal, perinatal and postnatal factors may also contribute, genetics plays a central role in many cases particularly when delays are unexplained or accompanied by additional clinical features like congenital malformations or dysmorphic features.

Historically, evaluation followed a tiered approach that often began with chromosomal microarray, Fragile X testing and metabolic screening. In retrospect, this sequential testing strategy resulted in prolonged diagnostic timelines and increased testing burden for families.

Advances in next-generation sequencing have reshaped this approach. Whole-exome sequencing (WES) and whole-genome sequencing (WGS) allow simultaneous analysis of thousands of genes known to be associated with neurodevelopmental disorders and can detect deletions and duplications with equal or improved sensitivity to chromosomal microarrays. The comprehensive genomic approach improves the likelihood of identifying an underlying diagnosis earlier, which can guide condition management, inform prognosis and support family counseling.

EVIDENCE SUPPORTING FIRST-TIER GENOMIC SEQUENCING

Across multiple studies, diagnostic yield for exome or genome sequencing ranges from 28-43%, compared with approximately 15-20% for chromosomal microarray alone. When used as first-line testing, exome or genome sequencing leads to more diagnoses, lower overall health care costs and shorter time to diagnosis. Families also place strong value on negative results, underscoring that diagnostic yield alone does not fully capture the clinical utility of genomic sequence testing.

Several factors influence diagnostic yield, including the severity of ID, presence of congenital anomalies or dysmorphic features and neurologic comorbidities. Testing strategy also matters. Trio-based sequencing, which includes parental samples, provides an additional 10-15% diagnostic yield by facilitating identification of de novo variants and clarifying variant inheritance.

UPDATED ROLE OF OTHER TESTING MODALITIES

While genomic sequencing has moved earlier in the diagnostic process, other testing modalities remain important. Chromosomal microarray continues to be recommended as a first-tier study and may be performed sequentially or concurrently with exome sequencing, depending on clinical presentation and testing availability.

Fragile X testing is no longer recommended as a first-line test due to its low diagnostic yield and should be reserved for patients with suggestive clinical features or family history, or as a follow-up test after non-diagnostic first-tier studies. Similarly, metabolic testing for inborn errors of metabolism has shifted from first-tier to second-tier evaluation and is typically considered after non-diagnostic genomic sequencing.

COMPREHENSIVE GENETIC CARE AT CHILDREN'S WISCONSIN

At Children's Wisconsin, updated guidelines are reviewed and implemented by the Genetics and Genomics Program. The

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Concern for GDD/ID

PATIENT AND FAMILY HISTORY
Additional phenotyping as indicated
(including MRI brain, hearing and
vision evaluations)

Has developmental
regression occurred?

Yes

Refer to
neurology
and/or
genetics for
evaluation

No

Is phenotype suggestive
of a monogenic disorder or group
of disorders?

Yes

Perform
targeted
single gene/
panel testing

No

TIER 1 TESTING
Genome sequencing OR exome
sequencing + chromosomal microarray
(sequential or concurrent)

Continue if
no diagnosis
obtained

Continue if no
diagnosis obtained

TIER 2 TESTING
Screening for treatable
inborn errors of metabolism
(Table 4) AND Fragile X

multidisciplinary team includes genetic advanced practice providers, genetic counselors and metabolic dietitians who collaborate closely with geneticists and other specialists to deliver individualized care. Nationally recognized as a Center of Excellence by the National Organization for Rare Diseases and an Undiagnosed Disease Network site, the program offers expertise across neurodevelopmental disorders, multiple congenital malformations, hereditary connective tissue disorders, inborn errors of metabolism, neurogenetics, rare disease and complex genetic conditions. The program uses an innovative hub-and-spoke model integrating genetic counselors into specialty clinics across the Milwaukee Campus, improving access to genetic expertise and streamlining care for patients and referring providers.

IMPLICATIONS FOR REFERRING PROVIDERS

These updated guidelines emphasize the importance of early referral to genetics and timely consideration of exome or genome sequencing for children with unexplained GDD or ID. Earlier diagnosis can directly inform medical management, guide anticipatory surveillance, identify treatment opportunities, improve coordination of care and support family counseling.

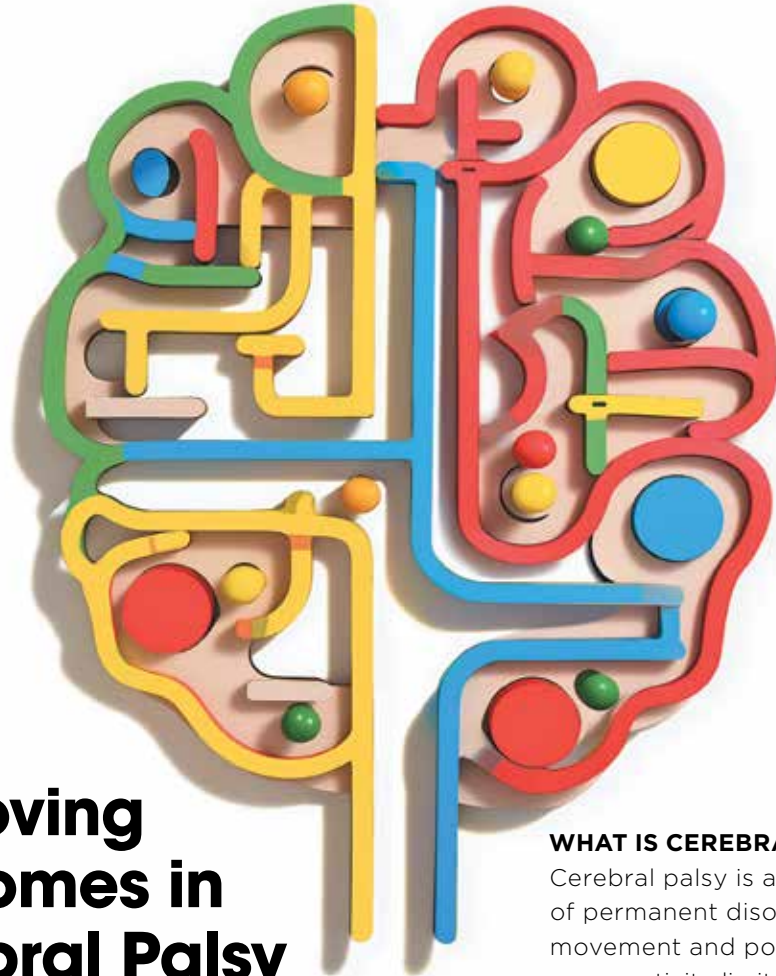
For referring providers, incorporating genomic testing earlier in evaluation can reduce unnecessary testing and delays in care, providing families with clearer answers during a critical period of development and prior to the onset of many or all symptoms of the diagnosis.

For more information about the
Children's Wisconsin Genetics and
Genomics Program, visit childrenswi.org/genetics.

INNOVATIONS

Case studies and
research for better care

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Improving Outcomes in Cerebral Palsy

How early recognition and coordinated specialty care optimize outcomes for children with cerebral palsy

Cerebral palsy (CP) is the most common cause of childhood physical disability and represents a group of permanent disorders of movement and posture resulting from nonprogressive injury to the developing brain. Although the underlying brain injury is static, the musculoskeletal and functional consequences evolve over time, making early recognition and longitudinal management essential. Use of standardized neurological assessments and early intervention strategies allow for earlier diagnosis and management of CP, including timely access to therapies that can optimize function, reduce complications and support families.

WHAT IS CEREBRAL PALSY?

Cerebral palsy is a group of permanent disorders of movement and posture that cause activity limitation and are attributed to nonprogressive injury to the developing brain. Key features of CP include:

- Permanent, nonprogressive injury to the brain
- Affects movement, posture and motor development
- Results from injury to the developing brain (fetal, infant or toddler up to 3 years)
- Often accompanied by other neurologic or systemic conditions like epilepsy, cognitive impairment, dysphagia, poor growth and orthopedic issues like scoliosis and spastic hip dislocation.

It is important to note that CP results from a nonprogressive injury to the brain, but common associated conditions and musculoskeletal complications evolve over time as the child grows.

CAUSES AND CLASSIFICATION OF CEREBRAL PALSY

Common causes of CP include prematurity-related intraventricular hemorrhage with subsequent white matter injury, hypoxic-ischemic encephalopathy, perinatal stroke, infection, genetic or congenital brain malformations, abusive head injury and other traumatic brain injuries during infancy and toddlerhood. Incidence is highest among infants born prematurely. Understanding the underlying brain injury helps guide prognosis, surveillance and anticipatory management, as certain causes have higher risk for associated medical conditions like epilepsy and intellectual disability.

Clinical classification of CP is based on motor type and topographic distribution. Spastic CP is the most common subtype and may present as unilateral (hemiplegic) or bilateral (quadriplegic or diplegic) involvement. Dyskinetic CP is characterized by dystonia and choreoathetosis. Ataxic CP involves impaired coordination and balance. Many children demonstrate mixed motor patterns. Functional classification systems — including the Gross Motor Function Classification System (GMFCS) — are essential tools for describing abilities, guiding care planning and facilitating interdisciplinary communication.

WHEN TO REFER

Early referral improves access to services and family education. Timely referral to pediatric physical medicine and rehabilitation and appropriate therapy services is one of the most impactful actions that primary care clinicians can take. Referral should occur as soon as concerns regarding tone, movement quality, asymmetry or delayed milestones are identified and should not be delayed while awaiting imaging or diagnostic certainty.

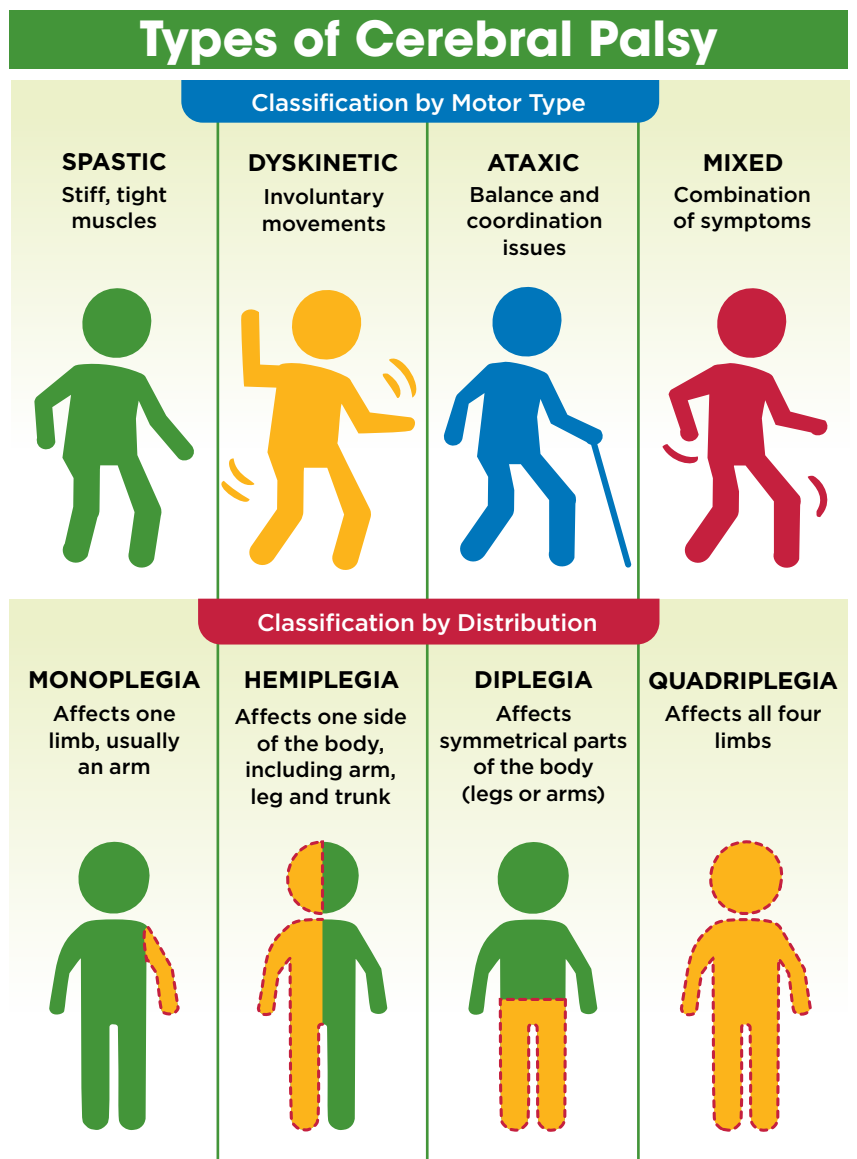
Referral is appropriate when:

- Motor delay with abnormal tone is identified
- There is concern for CP in a high-risk infant
- Gait abnormalities interfere with function
- Spasticity that causes pain, hygiene issues or functional limitation

Children’s Wisconsin has a multidisciplinary approach to the diagnosis and care of patients and an array of specialty clinics available.

EARLY DIAGNOSIS OF CEREBRAL PALSY (CP): DREAM CLINIC

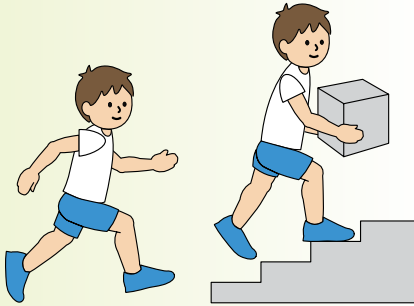
The Developmentally Ready: Engagement for Achievement of Milestones (DREAM) Clinic focuses on management of NICU graduates with known neurologic disorders who are at high risk to develop cerebral palsy.



Types of Cerebral Palsy

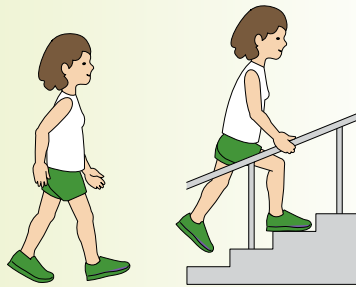
GMFCS E & R between 6th and 12th birthday:

GMFCS Level I



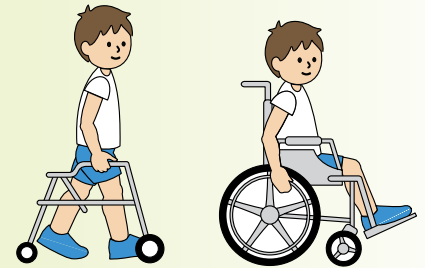
Youth walk at home, school, outdoors and in the community. Youth are able to climb curbs and stairs without physical assistance or a railing. They perform gross motor skills such as running and jumping but speed, balance and coordination are limited.*

GMFCS Level II



Youth walk in most settings but environmental factors and personal choice influence mobility choices. At school or work they may require a handheld mobility device for safety and climb stairs holding onto a railing. Outdoors and in the community youth may use wheeled mobility when traveling long distances.*

GMFCS Level III



Youth are capable of walking using a handheld mobility device. Youth may climb stairs holding onto a railing with supervision or assistance. At school they may self-propel a manual wheelchair or use powered mobility. Outdoors and in the community youth are transported in a wheelchair or use powered mobility.*



Kimberley L. Zvara, MD, Medical Director, Physical Medicine and Rehabilitation at Children's Wisconsin and Associate Professor at the Medical College of Wisconsin

Early identification of CP is critical as diagnosis can now be made with high accuracy within the first six months of life in infants with identifiable risk factors. Infants born prematurely, those with neonatal encephalopathy, stroke, intracranial hemorrhage or abnormal neuroimaging findings are at particularly high risk. The use of validated tools such as the Hammersmith Infant Neurological Examination (HINE), supplemented by MRI, improves diagnostic accuracy and reduces reliance on prolonged observation alone. This approach allows early CP-specific intervention to begin without delay and avoids the harms associated with a "wait and see" approach. Early diagnosis has been shown not only to improve motor outcomes but also to reduce

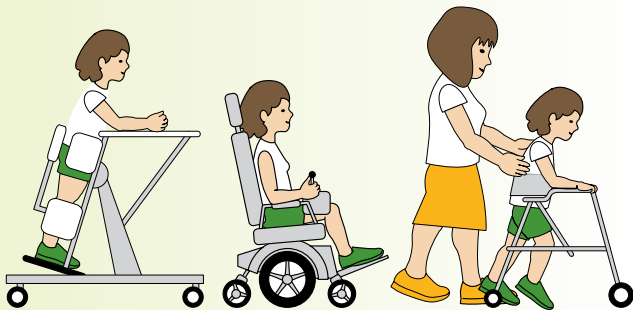
parental stress and improve engagement with therapy services during a period of heightened neuroplasticity.

Key services provided in DREAM clinic:

- Advanced neuroimaging: Performed by pediatric neuroradiology with clinical input from pediatric neurology and pediatric neurosurgery

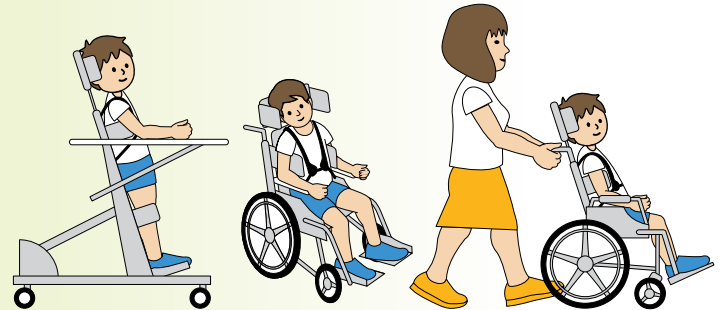
- Hydrocephalus and neonatal hemorrhage: Managed by pediatric neurosurgery
- Sensory, motor and cognitive evaluations: Provided by pediatric neuropsychology and HINE testing at 3 and 6 months of age by neonatology
- Early diagnosis of CP: Provided in collaboration with pediatric neurology and pediatric rehabilitation medicine to support timely therapy, family guidance and care planning
- Management of epilepsy: Provided by pediatric neurology
- Whole-child, whole-family support: Provided by palliative care and psychology, focusing on quality of life, symptom management and overall well-being
- Genetic counseling: Provided by genetic counselors who guide families through testing, interpretation and personalized risk assessments for genetic conditions that predispose newborns to neurologic injury

GMFCS Level IV



Youth use wheeled mobility in most settings. Physical assistance of one to two people is required for transfers. Indoors, youth may walk short distances with physical assistance, use wheeled mobility or a body support walker when positioned. They may operate a powered chair, otherwise are transported in a manual wheelchair.*

GMFCS Level V



Youth are transported in a manual wheelchair in all settings. Youth are limited in their ability to maintain antigravity head and trunk postures and control leg and arm movements. Self-mobility is severely limited, even with the use of assistive technology.

Clinical Pearl: Two children with cerebral palsy may have vastly different presentations and medical and functional needs.*

*Palisano et al. (1997) Dev Med Child Neurol 39:214-23.

COMPREHENSIVE MANAGEMENT: CP CLINIC, SPASTICITY CLINIC AND EQUIPMENT CLINIC

There is no cure for CP, but early multidisciplinary management significantly improves outcomes.

Children with CP are at increased risk for hip displacement, contractures, scoliosis and pain. Early identification and proactive management of these conditions can reduce long-term morbidity and improve outcomes. Care is typically managed by pediatric rehabilitation medicine and orthopedic specialists.

SPASTICITY CLINIC

Spasticity and dystonia management may include enteral medications, injectable treatments such as botulinum toxin, intrathecal therapies and orthopedic and neurosurgical surgeries when indicated. Pediatric Rehab Medicine, Orthopedics and Neurosurgery work together to identify appropriate interventions.

- Enteral medications (Baclofen, Dantrolene, etc.)
- Injectable treatments (Botulinum toxin; Ethyl alcohol nerve blocks)
- Intrathecal therapy (Baclofen pumps)
- Muscle and tendon lengthening surgeries
- Selective dorsal rhizotomy (SDR) for specific candidates

EQUIPMENT CLINIC

Orthoses, assistive technology and adaptive equipment play a critical role in promoting mobility and independence. Physical and occupational therapy, pediatric rehab medicine and assistive technology professionals from area durable medical equipment companies work together to identify appropriate durable medical equipment to improve function.

Cerebral palsy is a lifelong condition with evolving clinical needs, but early recognition and coordinated, multidisciplinary care can significantly improve function and quality of life. Prompt referral, accurate classification and proactive management allow providers to support children and families during critical periods of development.

Learn more about cerebral palsy services offered at Children's Wisconsin at childrenswi.org/cerebralpalsy.



Building an Age-Appropriate Skin Care Regimen for Teens and Tweens

Guidance for managing puberty-related skin changes amid social media skin care trends

As children enter puberty, skin changes are often among the first visible signs. Acne, eczema and dermatitis are common concerns in teens and tweens, driven by hormonal shifts that increase oil production. At the same time, social media has introduced a new challenge: complex skin care routines that may do more harm than good.

PUBERTY, HORMONES AND SKIN CHANGES

Hormonal changes during puberty include rising testosterone levels in all genders, which stimulate oil glands in the skin. This increase in oil production plays a central role in acne development and can also contribute to conditions such as seborrheic dermatitis and dandruff.

As oil production increases, consistent hygiene becomes more important. Face washing twice daily with a gentle cleanser can help reduce acne development. More frequent hair washing may be required as dandruff becomes more common. Providers should normalize these

changes and encourage age-appropriate routines that support overall skin health.

AVOIDING OVERLY COMPLEX REGIMENS

One of the most concerning trends Katherine Kondratuk, MD, a Pediatric Dermatologist at Children’s Wisconsin, has seen is the rise of multi-step skin care regimens promoted by social media influencers targeted to teens and tweens.

A study examining social media skin care content for users under age 18 found that the average routine included six products, cost approximately \$168 per regimen and featured up to 21 potentially irritating active ingredients. Layering products with exfoliating acids or retinols increases the risk of skin irritation, since many of the ingredients have not been well studied in pediatric populations.

“More products do not mean better results,” said Dr. Kondratuk. “In fact, layering multiple active ingredients can worsen skin conditions and make it harder to treat acne effectively.”

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When prescription treatments are started, she recommends eliminating nonessential products, including astringents and harsh cleansers to reduce skin irritation and improve adherence to the treatment plan.

THE ROLE OF OVER-THE-COUNTER PRODUCTS

Over-the-counter products play an important role in managing common pediatric skin conditions. Gentle cleansers, moisturizers, anti-dandruff shampoos and acne products can be effective first-line tools when used correctly. Dermatologists at Children's Wisconsin guide families toward products with appropriate concentrations of active ingredients, minimal fragrances or additives and that contain ingredients that have been studied in pediatric populations.

SETTING EXPECTATIONS AND SUPPORTING ADHERENCE

One of the most common misconceptions among teens and families is expecting immediate results.

"Acne treatments typically require at least three months of consistent use to see improvement and determine if the treatment will work long term," said Dr. Kondratuk. "Sometimes, when a new medicine is started for acne, it can get a little worse before it gets better, especially during the first month."

Expectation management is critical, especially in a generation influenced by highly curated social media content where perception isn't always reality. Providers can support adherence by counseling families on what to expect, including the possibility of early irritation. Simple strategies such as starting topical medications every other night and applying moisturizers to reduce dryness help patients remain consistent and avoid stopping treatment prematurely.

WHEN TO REFER TO DERMATOLOGY

Referral is appropriate when acne raises concern for scarring or when patients do not respond to standard topical therapies or steroids for eczema or other skin conditions like atopic dermatitis. Treatment options for atopic dermatitis have expanded significantly in recent years, including biologics and newer systemic therapies approved for pediatric use.

ADDRESSING THE WHOLE PATIENT

Skin health is closely linked to mental and behavioral health, particularly during adolescence. Providers in the Children's Wisconsin Dermatology Program routinely screen patients over age 10 for mental health concerns and collaborate with adolescent medicine, behavioral health and social work when skin conditions affect mood, self-esteem or daily functioning.



Katherine Kondratuk, MD, Pediatric Dermatologist at Children's Wisconsin and Assistant Professor at the Medical College of Wisconsin

KEY TAKEAWAYS FOR PROVIDERS

A simple, gentle baseline routine remains the foundation of healthy teen skin care: washing the face twice daily with a gentle cleanser, using a moisturizer with sunscreen in the morning and a gentle moisturizer at night. Providers should be alert to overly complex regimens influenced by social media and encourage families to scale back when irritation occurs.

With early guidance and realistic expectations, providers can help teens and tweens establish sustainable skin care habits that support both physical and emotional well-being.

Want to learn more about adolescent skin care? Visit childrenswi.org/dermatology.

Highlighting Excellence in Surgical Care

The 2025 Diagnostic, Anesthesia and Surgical Health Annual Report highlights the expertise and innovation taking place at Children's Wisconsin in these surgical specialties:

- Anesthesia
- Cardiothoracic Surgery
- Critical Care
- General Surgery
- Imaging
- Ophthalmology
- Urology

Scan the QR code to read the 2025 Diagnostic, Anesthesia and Surgical Health Annual Report.



Robotic Laparoscopic Surgery in Pediatric Urology

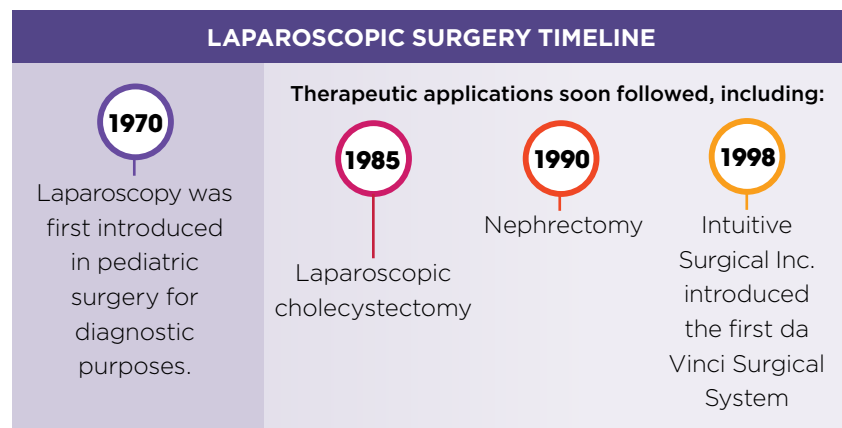
Advancing minimally invasive techniques to improve outcomes for children with complex urologic conditions



Travis Gorth, MD, Pediatric Urologist at Children's Wisconsin and Associate Professor at the Medical College of Wisconsin

Minimally invasive surgery (MIS) has transformed pediatric surgical care over the past several decades. Laparoscopy was first introduced in pediatric surgery in the 1970s for diagnostic purposes.¹ Therapeutic applications soon followed, including laparoscopic cholecystectomy in 1985 and nephrectomy in 1990.^{2,3} Since that time, MIS has become standard of care for many pediatric and adult surgical conditions.

MIS techniques rely on one or several small incisions, typically less than one centimeter, to introduce a camera and instruments into the body. Compared to open surgery, MIS offers several advantages for both pediatric and adult patients. These include reduced postoperative pain, decreased narcotic use, less scarring, shorter hospital stays and faster return to activity. Multiple studies have demonstrated that MIS is both safe and effective in children.



EVOLUTION OF ROBOTIC-ASSISTED SURGERY

Although commonly described as “robotic surgery,” the system is more accurately characterized as robotic-assisted laparoscopic surgery, as it is entirely surgeon-controlled.

The technology was developed to address limitations of conventional laparoscopy, including two-dimensional visualization and restricted instrument articulation. Robotic-assisted systems overcome these challenges by offering three-dimensional visualization, magnification, tremor elimination and wrist-like instrument articulation.

These capabilities have made robotic-assisted surgery particularly

well suited for pediatric urologic reconstructive procedures, where precision is critical.

CLINICAL IMPACT IN PEDIATRIC UROLOGY

In pediatric urology, procedures that once required open surgery can now be performed safely with robotic assistance, often with equal or improved surgical outcomes.

Children undergoing robotic-assisted procedures frequently return home the day after surgery with less discomfort than those undergoing open surgery. At Children's Wisconsin, robotic-assisted laparoscopic surgery is offered for the following conditions:

- Bladder surgery
- Genitourinary reconstructive procedures
- Nephrectomy and nephroureterectomy
- Pyeloplasty for ureteropelvic junction obstruction
- Ureteral reimplantation for vesicoureteral reflux

ROBOTIC SURGICAL EXPERTISE AT CHILDREN'S WISCONSIN

Robotic-assisted laparoscopic surgery highlights how technology continues to advance pediatric surgical care. Successful outcomes depend on a team experienced in both pediatric disease and robotic techniques.

At Children's Wisconsin, a dedicated robotic surgery program supports this work, including an in-house da Vinci Surgical System and five fellowship-trained pediatric urologists who are trained in robotic-assisted laparoscopic surgery: Elizabeth Roth, MD; Jonathan Ellison, MD; Susan Jarasz, DO; Doug Storm, MD; and Travis W. Groth, MD.

Children's Wisconsin continues to invest in minimally invasive and robotic-assisted technologies to expand access to advanced surgical care tailored to pediatric patients.

References:

1. Gans SL, Berci G. Advances in endoscopy of infants and children. *J Pediatr Surg*, 1971. 6(2):199-233.
2. Reynolds Jr W. The first laparoscopic cholecystectomy. *JLS*, 2001. 5(1):89-94.
3. Clayman RV, et al. Laparoscopic nephrectomy: initial case report. *J Urol*, 1991. 146(2):278-82.

Want to learn more about urologic robotic laparoscopic surgery? Visit childrenswi.org/urology.



NEWS & NOTES

Information from around
Children's Wisconsin

To refer a patient, call (800) 266-0366.

development, helping extend prevention into everyday conversations.

Health care providers play an important role in this prevention framework. While providers are most familiar with responding to abuse after it occurs, Awareness to Action encourages health care professionals to think beyond standards of care for sensitive exams by modeling healthy boundaries, following communication best practices and providing anticipatory guidance on topics such as child sexual development.

At its core, Awareness to Action delivers a clear message: Child sexual abuse is preventable, and prevention is possible when adults work together to create safer communities for children.

Awareness to Action: Strengthening Prevention Through Purpose and Partnership

Preventing child sexual abuse before it ever occurs is at the core of Awareness to Action, a program at Children's Wisconsin focused on prevention and adult responsibility. As part of the Community Health and Education Department, the program supports the vision of Children's Wisconsin to have the healthiest kids in the nation by addressing factors that affect children's health beyond clinical settings.

"Much of a child's health is influenced by what happens outside the walls of a hospital or clinic," said Laura Staats, Program Manager for Awareness to Action. "While Children's Wisconsin provides critical services for response, treatment and recovery, we know kids are safest when abuse never happens in the first place."

Approximately one in 10 children will experience sexual abuse before age 18, making prevention a critical public health priority. Awareness to Action focuses its efforts on adults, not children, recognizing that the responsibility for prevention lies with those who lead the systems that

care for children. The program works primarily with youth-serving organizations, providing education and technical support to help leaders develop and implement policies that promote safe environments.

Through education, training and practical resources, Awareness to Action supports a systems-based approach to child sexual abuse prevention. Its training helps organizations assess, update and implement best-practice policies that establish clear boundaries, reduce opportunities for abuse and model safe, healthy adult behavior. The program also offers resources for providers and families on boundary-crossing behaviors, the grooming process and healthy sexual

"Prevention is not separate from health care. It's part of our shared commitment to kids' health and well-being."

—Laura Staats



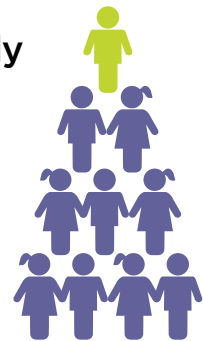
Laura Staats,
Program Manager
for Awareness to
Action at Children's
Wisconsin

FATCAMERA VIA GETTY IMAGES



Awareness to Action

Approximately
one in 10
children will
experience
sexual abuse
**before
age 18**



For more information about Awareness to Action, visit a2awisconsin.org.

Infectious Disease



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- UPMC Medical Education — Pediatric Infectious Diseases
- Infectious Disease

Mental and Behavioral Health



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Mental and Behavioral Health



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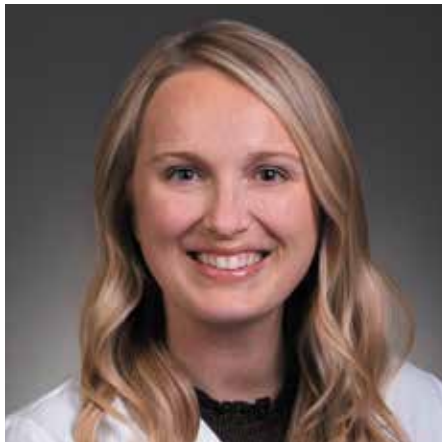
Mental and Behavioral Health



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Neurosciences/Neuropsychology



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- Neuropsychology

Neurosciences/Neurology



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- University of New Mexico — Child Neurology
- Medical College of Wisconsin Affiliated Hospitals — Epilepsy (Neurology)
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Mental and Behavioral Health



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Neurosciences/Neurosurgery



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- University of Colorado School of Medicine — Neurological Surgery
- Emory University School of Medicine
- Neurosurgery

NEW ON STAFF

Specialists in our network ready to help

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New Advanced Practice Providers

Nhan Pham, CAA



Departures

Anesthesiology

Christina D. Diaz, MD

CHW-128790

LEARN & DISCOVER

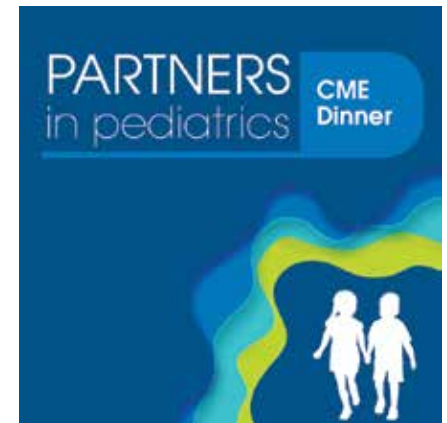
Medical education and
research opportunities

Continuing Medical Education

Children's Wisconsin is committed to supporting medical professionals with continuing medical education and resources. Our physicians and providers are eager to share their knowledge and research to help you care for your patients. We are continually planning events that highlight the latest news about our specialties, best practices and other important topics.

SMART Series

JUNE 3, 2026 AND NOV. 12, 2026
childrenswi.org/SMART



Partners in Pediatrics Dinner

KENOSHA MAY 20, 2026
DELAFIELD SEPT. 23, 2026
APPLETON OCT. 2026
childrenswi.org/cme

Adolescent and Young Adult Cancer Survivorship

NOV. 6, 2026
childrenswi.org/ayasurvivorship



Register for upcoming events
and find recorded events at
childrenswi.org/cme.

Questions? Email
mdconnect@childrenswi.org.