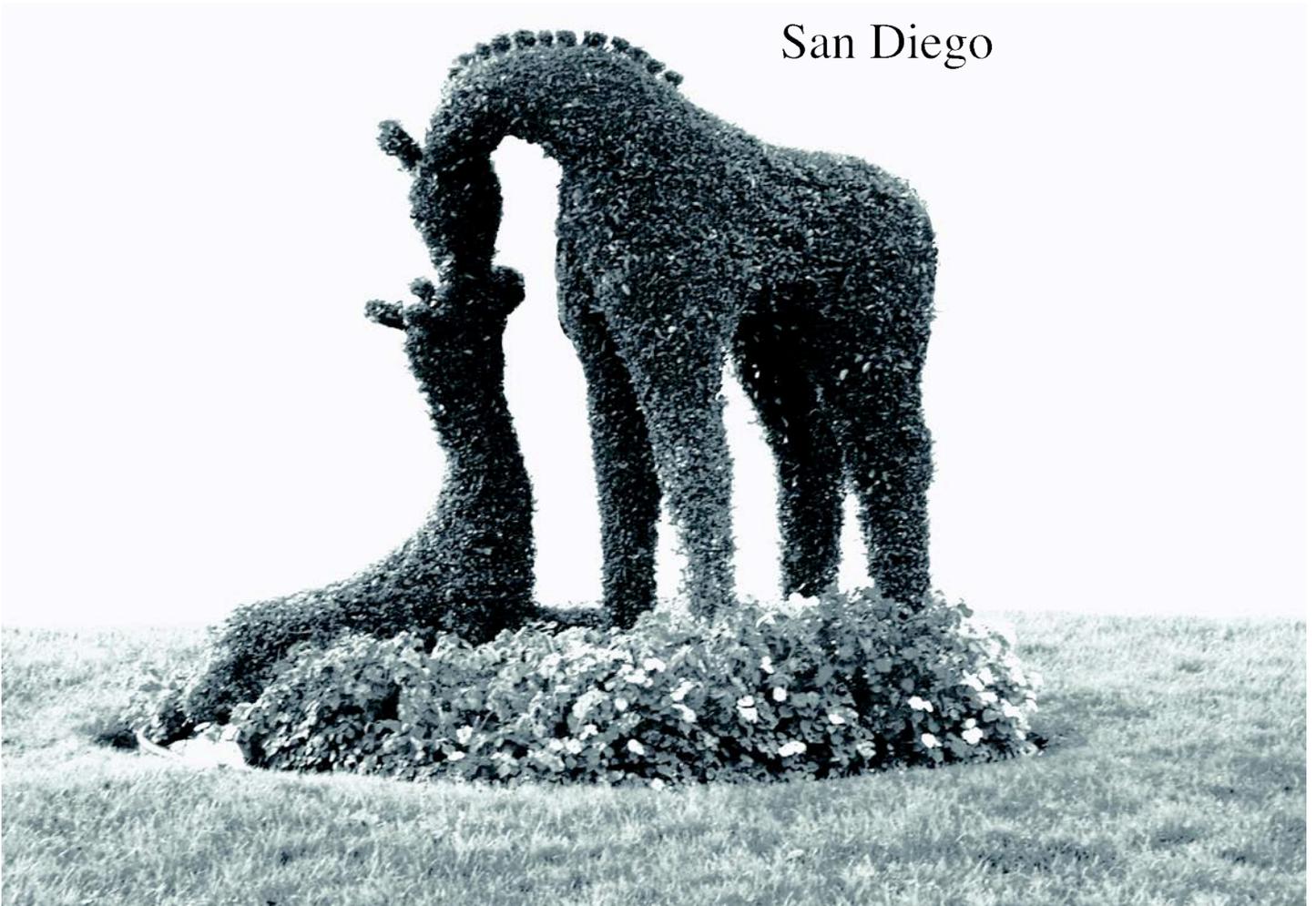


Pediatric Orthopedic Training Program

2000-2001

 Children's Hospital - San Diego
and the
University of California

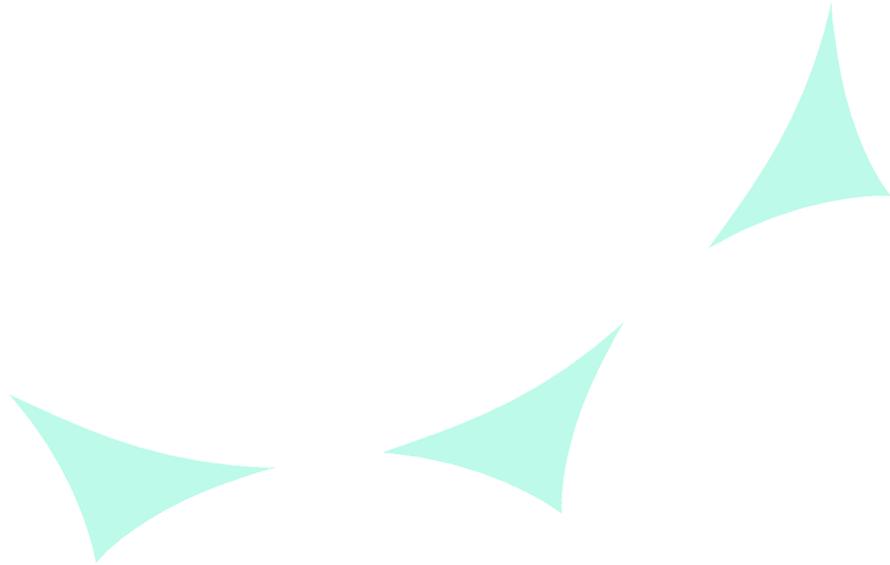
San Diego





Pediatric Orthopedic Training Program

2000 - 2001



Pediatric Orthopedic Training Program

Children's Hospital, San Diego
and
University of California, San Diego

I	Introduction.....	1
II	Orthopedic Training Program.....	7
III	Introduction to Full-Time Staff.....	11
IV	Children's Orthopedic Surgery Research Program.....	15
V	Special Features.....	17
VI	Publications.....	21
VII	Educational Programs.....	31

Introduction

Dear Colleagues:

The Pediatric Orthopedic Training Program at Children's Hospital, San Diego, continues to be active in patient care, teaching, and research. This biennial report provides an update on the many changes and advances that have occurred over the last two years briefly and should help you to better understand our program. We have also added a section introducing and describing the activities of each of our full-time faculty for those who are less familiar with the history and development of our program.

Mission and Goals of the Program

Our full-time staff come from a variety of training program backgrounds with each being fellowship trained in pediatric orthopedics. Each has had exposure to several types of training programs which provided clinical experience in both partially private and full-time academic settings, including institutions dedicated solely to pediatric orthopedics. As a result of this exposure we have developed a consensus philosophy regarding our mission which is to provide efficient, empathetic state-of-the-art pediatric orthopedic and scoliosis care for children, adolescents, and young adults from throughout southern California, the southwest, elsewhere in North America, Mexico and the world.

Our goal is to provide, efficient, scientifically based care that is readily accepted by both the simplest of consumers as well as Ph.D. educated, internet literate families. Each appreciates and understands scientifically based, efficient, compassionate care. We believe that we are able to achieve this goal because we work in a unique institutional circumstance (Children's Hospital, San Diego, and the University of California, San Diego) with excellent clinical facilities (Children's Hospital, San Diego) as well as an extensive research program that supports advanced treatment methods for patients with pediatric orthopedic conditions and scoliosis.

Another benefit to our program is our good fortune of being based in one of the most beautiful and climatically ideal geographic locations on the globe (San Diego, California). This allows us to maintain a stable pediatric orthopedic staff and to select the best clinicians, researchers, and trainees from throughout North America and the world. Good climate, good sunshine, good bicycling, jogging, and surfing opportunities contribute immensely to our ability to attract outstanding staff, residents, fellows, and research personnel.



The beautiful setting and sophisticated architecture of Children's Hospital - San Diego makes coming to work each day a distinct pleasure. Recently ranked as one of the nations ten best children's hospitals, our center takes great pride in it's expert yet efficient care.

Infrastructure – Institutional Relationships

We have established an ideal, productive relationship with the University of California, San Diego (UCSD) Orthopaedic Department, chaired by Dr. Steven Garfin. The recently finalized amalgamation between UCSD, and Children's, confirms Children's Hospital-San Diego as the teaching institution for all UCSD Departments. All patient care and teaching will now be carried out on the Children's Hospital campus with research being shared between the two institutions. This new relationship results in no change for our department, since orthopedics has been functionally "amalgamated" over the last 20 years, beginning with the Wayne Akeson—David Sutherland corroboration.

Changes – New Programs

Several important new developments have occurred over the last two years, which will be expanded upon later in this document.

Biomechanics Research Laboratory - Our research program has been greatly expanded by the development of the Biomechanics Research Laboratory under the direction of Dr. Peter Newton, who has been named Director of Orthopedic Research. Equipped with the latest biomechanical testing equipment, we are now able to perform advanced biomechanical research related to a variety of musculoskeletal conditions, including hip disorders, all aspects of scoliosis and spinal deformity, as well as fractures and other disorders. This laboratory work, along with extensive animal studies, has allowed Children's Hospital, San Diego to become an internationally recognized center for biomechanical analysis of pediatric musculoskeletal conditions with its strongest focus being on the development of new methods for fiberoptic guided correction of spinal deformity. Dr. Newton has close academic affiliation with the UCSD Bioengineering Research Department and has also been named a Skaggs Scholar in the Scripps Institute – Children's Hospital Program. Thus, basic and applied laboratory research continue to be an integral part of the Children's Hospital training program.

Motion Analysis Laboratory - Dr. Hank Chambers was named as Medical Director of the Motion Analysis Laboratory. Dr. David Sutherland continues as Senior Medical Consultant to the Motion Analysis Laboratory and remains active in both clinical and research aspects of motion analysis. The Motion Analysis Laboratory is expanding its focus to include sports medicine analysis as well as a significant expansion into trunk shape analysis, including frontal and sagittal plane deformity measurement for scoliosis and spinal deformity.

Binational Pediatric Orthopedic Program

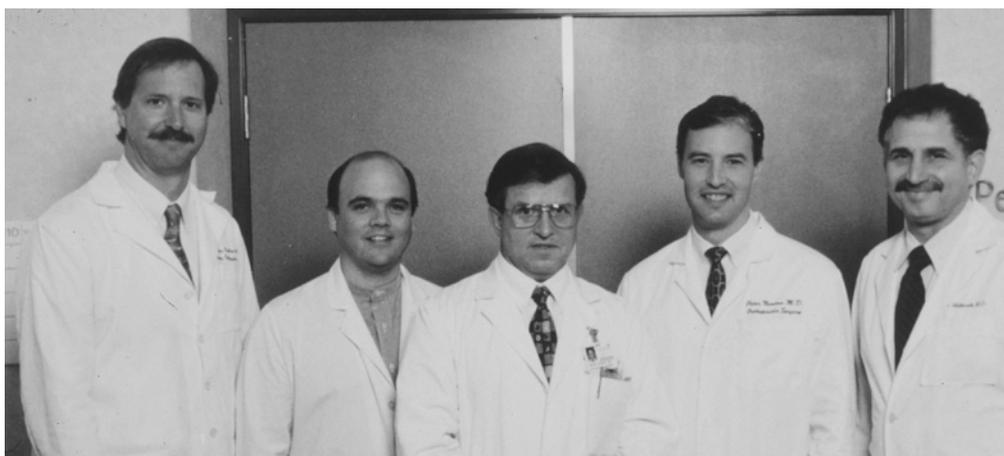
The Binational Program allows Children's Hospital, San Diego fellows and staff to work with the orthopedic staff of the Hospital del Ninos in Tijuana. This provides an interesting international experience for our fellows, as well as medical students, residents, and staff. Dr. Carlos Gutierrez-Loya of Tijuana provides wise leadership in Tijuana and collaborates with our staff and fellows in arranging surgical cases.

Hospital del Ninos, Tijuana, B.C., Mexico



Monthly orthopedic clinics held in Tijuana greatly enrich the experience of our fellows. The happy “Travel Team” includes surgeons, interpreters, orthotists, nurse practitioners, students, and other committed volunteers.

Staff Activities



Full time orthopedic staff of Children's Hospital - San Diego and Children's Specialists Group

Each of our full-time academic staff continue to be very active in clinical care, teaching, and research on the local, national, and international levels. Later segments of this issue will clarify the activities of each. In addition to our full-time academic staff, many other physicians continue to make major contributions to our teaching program. Dr. David Sutherland remains active as the Senior Consultant to the Motion Analysis Laboratory, attends our teaching conferences, and provides advice on complex cases. He continues to travel nationally and internationally and, in fact, recently returned from a lecturing at the Pediatric Orthopedic Society of India (POSI) meeting (March 2000). Dr. Behrooz Akbarnia, Dr. Michael Casey, Dr. Lisa Miller, and Dr. James Moitoza also provide support in many of our patient care and teaching areas.

Support staff

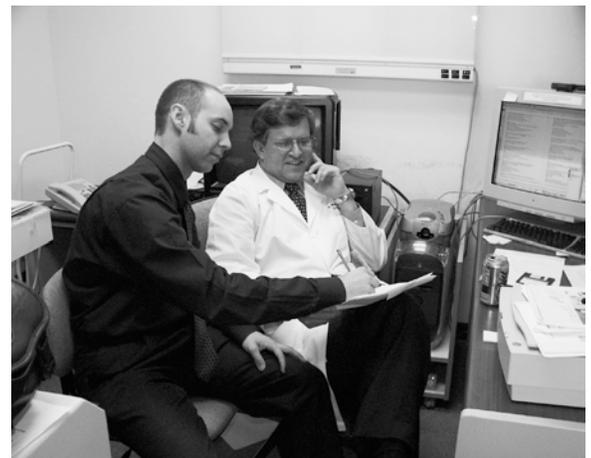


Our great support staff always seem willing to help give a party for arriving and departing staff, fellows, and residents

We are blessed with superb support staff that allow our program to flourish. Lisa Crabb, RN, continues as coordinator of the residency and fellowship training program and also is involved in the organization of our incredibly efficient outpatient orthopedic clinics at Children's Hospital. This includes helping to design our new expanded hospital orthopedic clinic system which will occupy the entire south end of the first floor of the hospital. Joan Morgan, PT, (and hospital clinic coordinator), is also a key member of the clinic team. For those of you who know our clinic, there is nothing quite like it elsewhere. Rapid turnover, rapid x-ray performance, yet high quality care remain our trademark.

Our research program has expanded exponentially under the direction of Dr. Peter Newton and research coordinator, Michelle Marks. Also Christy Farnsworth and Tracey Gaynor are active as assistant research coordinators. We have entered the digital age, and now have a strong, high technology focused medical illustration and publication department. J.D. Bomar has proven to be a brilliant electronic media expert and serves both as an orthopedic technician, but more importantly as a multimedia expert. This greatly expands our teaching and publication efforts. If you need a book chapter finalized by tomorrow, J.D., along with our efficient administrative team will have a clean manuscript, filled with great digital illustrations, burned on to a C.D. and in the Fed Ex outbox by noon. The 21st century is remarkable!

The training program administrative coordinator, Maria Miller, provides the backbone for organizing all training program activities, including both day-to-day issues, as well as arranging for call schedules, rotation schedules, fellow interviews, etc.



The development of our digital based multimedia division, founded and directed by J.D. Bomar, has revolutionized our efficiency in developing presentations, publications, videos, and patient education materials. The fellows and residents have ready access to this department, allowing them to quickly and efficiently develop educational presentations and well-illustrated publications.

Institutional support

Children's Hospital-San Diego was recently voted (Child Magazine) as one of the top ten children's hospitals in the U.S.A. with special credit given to the strength of the orthopedic department. The focus of excellence in pediatric orthopedics at Children's Hospital, San Diego, depends not only on its association with a great university orthopedic training program (UCSD) but also on strong support from Children's Hospital administration. Blair Sadler, President and Chief Executive Officer, as well as his many support staff, including Meg Norton, Paul Van Dolah, Rhonda Sparr-Perkins, and Jane Weisenberg, provide administrative leadership for orthopedics. Insightful and progressive support for both clinical care and research by the hospital has been instrumental in our success. Also, the Children's Hospital facility is a unique and beautiful hospital, which allows us to provide efficient, high-quality care for our many patients.



Blair L. Sadler
President and CEO

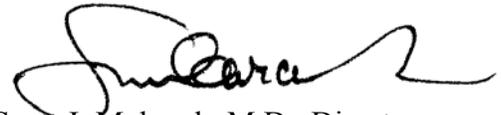


Summary

The Children's Hospital, San Diego – University of California, San Diego, Pediatric Orthopedic Training Program continues to be internationally recognized for the quality of its research, teaching, and patient care in pediatric orthopedics and scoliosis. We hope that the enclosed material will help you to better understand our program.



Dennis R. Wenger, M.D., Director
Pediatric Orthopedic Training Program
Children's Hospital, San Diego
Clinical Professor of Orthopedic Surgery
University of California, San Diego



Scott J. Mubarak, M.D., Director
Pediatric Orthopedic Clinical Program
Children's Hospital, San Diego
Clinical Professor of Orthopedic Surgery
University of California, San Diego



Graduation Time!

Orthopedic Training Program

Resident Training Program

Our residency training program includes residents rotating from the UCSD Program, the San Diego Naval Regional Medical Center Training Program, and the Wilford Hall Air Force Training Program (San Antonio). The Wilford Hall rotation began in 1999 and has provided outstanding orthopedic residents who are keen to experience the type of clinical teaching and research opportunities that Children's Hospital, San Diego, can provide. This new program has added to our overall productivity. In addition, an orthopedic research resident from UCSD (PGY-2) regularly rotates to Children's Hospital for a full year of research in our Motion Analysis and Biomechanics facilities. The continued growth in our Emergency Department visits and our elective pediatric orthopedic activities, provides a tremendous volume of pediatric orthopedic conditions that supports our training program, both for orthopedic residents and fellows. We believe that our residents are exposed to the ideal balance of cases with a special focus on the types of problems that they would manage in a general orthopedic practice.



The Emergency Department at Children's Hospital - San Diego provides the stage for our outstanding pediatric orthopedic trauma team to perform. Using conscious sedation and Flourosan™ imaging, children's fractures are reduced expertly and efficiently.

Resident Training Program (cont'd)



Our hospital outpatient clinic and office clinic experience more than 34,000 annual visits. Busy team members include surgeons, nurse practitioners, nurses, physical therapists, orthopedic fellows, and residents as well as medical students and orthopedic technicians.



Resident education occurs in all areas of the hospital including the orthopedic inpatient area (entire floor dedicated to the orthopedic service), the operating room, and orthopedic outpatient clinic (above).



Instruction in physical examination continues to be important in the pediatric orthopedic curriculum. Pediatric orthopedics is said by some to be the last truly “general orthopedic” rotation (requires musculoskeletal assessment of the entire body).



The Children's Hospital orthopedic technicians provide a critical role in allowing us to see 34,000 outpatients annually.



Resident training includes extensive instruction in casting techniques, both for fracture care as well as for post-operative cast immobilization.

Fellowship in Pediatric Orthopedics and Scoliosis

The Pediatric Orthopedic and Scoliosis Fellowship Program continues to train outstanding candidates from throughout North America.

Fellows who have completed their training program over the last two years have accepted the following positions:

1998-99 Fellows



Dr. Elliot

Dr. Meyers

Dr. Hahn

Dr. Lalonde

Dr. Michael J. Elliott – (Graduate of Bethesda Naval Hospital Orthopedic Program) – Full-time pediatric orthopedic staff – Norfolk Naval Hospital Training Program, Norfolk, Virginia.

Dr. Gregory V. Hahn – (Graduate of University of Pennsylvania Orthopedic Program, Philadelphia) – Pediatric Orthopedic Group, St. Petersburg, Florida.

Dr. Francois D. Lalonde – (Graduate of University of Ottawa Orthopedic Program, Ottawa, Ontario, Canada) – Full-time pediatric orthopedic staff, Children's Hospital, Ottawa/University of Ottawa training program.

Dr. Laura L. Meyers – (Graduate of Vanderbilt University Orthopedic Program, Nashville) – Pediatric Orthopedic Group, St. Louis, Missouri.

1999 - 2000:

Dr. Afshin Aminian – (Graduate of Northwestern University Orthopedic Training Program) Pediatric Orthopedic Group, Morristown (New Jersey)

Dr. David Scher – (Graduate of Hospital for Joint Diseases Training Program) – Full-time pediatric orthopedic staff – New York University - Hospital for Joint Diseases Combined Orthopedic Training Program (New York City)

Dr. Ernest Sink – (Graduate of University of Texas, Southwestern Orthopedic Training Program) – Full-time pediatric orthopedic staff Children’s Hospital, Denver/University of Colorado, Orthopedic Training Program (Denver)

1999-2000 Fellows



Dr. Sink

Dr. Scher

Dr. Aminian

Current Fellows (2000-2001)



Dr. Early

Dr. Yassir

Dr. Wilson

Dr. Sean Early – Graduate of Georgetown University Medical School and University of Southern California, Orthopedic Training Program (Los Angeles)

Dr. Wally Yassir – Graduate of State University of New York, Downstate Medical School and Tufts University Orthopedic Training Program (Boston)

Dr. Phillip Wilson – Graduate of University of Texas, Southwestern Medical School, and University of Texas, Southwestern Orthopedic Training Program (Dallas)

We have hosted multiple international fellows over the last several years, most recently Dr. Eduardo Segal (Argentina) and Dr. Alessandro Melanda (Brazil). Many international visitors electively visit and enrich our program, sharing orthopedic and cultural experiences.

Introduction to Full Time Staff

Dr. Wenger remains active as Director of the Orthopedic Training Program and also as a very busy clinician and surgeon, directing the Hip Disorder Service at Children's Hospital. His major research interests include spine and hip disorders in children. Over the last two years he has continued his national and international lecture schedule, including conferences in Argentina, Germany, Austria, England, India, Canada, and Mexico. The lecture trip to Bombay (Mumbai), India for the POSI (Pediatric Orthopedic Society of India) meeting, where both he and Dr. Sutherland were on the faculty, was the highlight of the 2000 academic year.

Dennis R. Wenger, M.D.

• Education:

- Ohio University, Summa cum laude
- University of Cincinnati College of Medicine
- Surgical Internship: Denver General Hospital
- Orthopedic Residency: University of Iowa Hospital
- Pediatric Orthopedic Fellowship: The Hospital for Sick Children, Toronto



- Director of Pediatric Orthopedic Residency and Fellowship Training Program, Children's Hospital, San Diego
- Clinical Professor, Department of Orthopedics, University of California, San Diego
- **Specialties:** Scoliosis • Hip disorders • Cerebral Palsy • Spina Bifida
Foot disorders in children • Fractures

Scott J. Mubarak, M.D.

• Education:

- Ripon College, Wisconsin
- University of Wisconsin Medical School
- Internship: Mercy Hospital, San Diego
- Orthopedic Residency: University of California at San Diego Medical Center
- Pediatric Orthopedic Fellowship: The Hospital for Sick Children, Toronto
- Director, Orthopedic Clinical Training Program, Children's Hospital, San Diego
- Clinical Professor, Department of Orthopedics, University of California, San Diego
- **Specialties:** Hip dislocation • Scoliosis • Fractures • Clubfeet
Joint infections • Muscular dystrophy
Compartment syndromes



Dr. Mubarak serves as Director of the Pediatric Orthopedic Clinical Program and provides immense energy for the organization and development of one of North America's largest clinical and surgical services in pediatric orthopedics. In addition to these skills, he remains active in teaching and research and travels extensively to lecture (Australia, Germany, Austria, Argentina, etc). He also serves on the organizing committee for the international SICOT conference which will hold its triennial international congress in San Diego in 2002.

Henry G. Chambers, M.D.

• *Education:*

-University of Colorado,
Summa cum laude

-Tulane University School of
Medicine

-Orthopedic Residency:
Brooke Army Medical Center

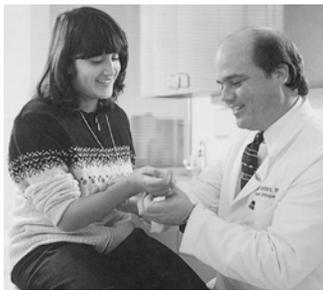
-Pediatric Orthopedic Fellowship:
Children's Hospital/University of California, San Diego

• Chairman - Orthopedics - Medical Staff Orthopedic Department,
Children's Hospital, San Diego

• Associate Clinical Professor, Department of Orthopedics, University
of California, San Diego

• Medical Director, Motion Analysis Laboratory

• *Specialties:* Sports Medicine • Trauma • Cerebral Palsy
Gait analysis • Fractures



Dr. Chambers serves as Director of the Motion Analysis Laboratory at Children's Hospital as well as Director of our Sports Medicine Program. He is extensively involved in research and teaching, particularly related to cerebral palsy and the use of botulinum injections for childhood neurologic conditions. He was recently, elected treasurer of the AACPD, named chair of the POSNA Motion Analysis Committee, and was named to the NIH Study Group on Hypertonic Conditions in Childhood.

Dr. Newton serves as Director of the Scoliosis Service and of our Research Division. He has organized a state-of-the-art Biomechanics Laboratory and also does extensive biological implant studies in the UCSD facilities. In addition, he was recently named a Skagg's Scholar as part of the Scripps Clinic – Children's Hospital combined research effort. Dr. Newton's research work on fiber-optic guided correction of scoliosis has led to many breakthroughs including anterior thoracic instrumentation via a thoroscopic approach. As a result, Children's Hospital-San Diego is one of the world's leading centers for advanced methods of scoliosis correction in childhood, adolescence, and early adulthood.

Peter O. Newton, M.D.

• *Education:*

-University of California,
San Diego, Bioengineering

-University of Texas,
Southwestern Medical School

-Surgical Internship and
Orthopedic Residency:
University of California,
San Diego

-Pediatric Orthopedic Fellowship: Texas Scottish Rite Hospital
for Children, Dallas

• Staff Pediatric Orthopedic Surgeon, Children's Hospital, San Diego

• Assistant Clinical Professor, Department of Orthopedics,
University of California, San Diego

• *Specialties:*

Scoliosis • Lower extremity problems
Limb length inequality • Fractures



C. Douglas Wallace, M.D.

- **Education:**

- University of California, San Diego

- University of Michigan
Medical School

- General Surgery Internship,
University of California, San Diego

- Orthopedic Residency:
University of California, San Diego

- Pediatric Orthopedic Fellowship:
Children's Hospital/University of California, San Diego

- Staff Pediatric Orthopedic Surgeon, Children's Hospital, San Diego

- **Specialties:** Hand disorders • Fractures • Cerebral palsy
Clubfoot • Spina bifida • Hip disorders



Dr. Wallace serves as Director of the Hand and Upper Extremity Service at Children's Hospital, as well as recently being appointed Director of the Orthopedic Trauma Program at Children's Hospital. The latter is an important key to our hospital's function, given that our Level I Trauma Center for Children is one of the largest in North America. Dr. Wallace is an excellent teacher and mentor and is actively involved in research related to upper extremity structure and function.

Nurse Practitioners



Mary Lou Scott, PNP



Phillip Stearns, PNP

Our recently developed nurse practitioner program has greatly added to our clinical capacity and expertise in the outpatient clinics at Children's Hospital.

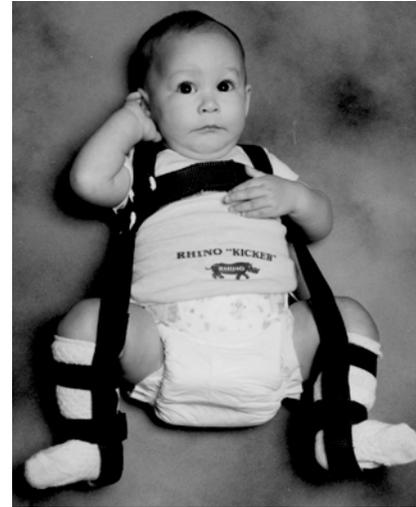
Children's Orthopedic Surgery Research Program

The Orthopedic Surgery Department of Children's Hospital is currently pursuing research endeavors through four main centers, each with a specific focus. Led by the Chief of Orthopedic Research, Dr. Peter Newton, these centers have experienced considerable growth and show great potential for further expansion.

Center for Orthopedic Outcomes:

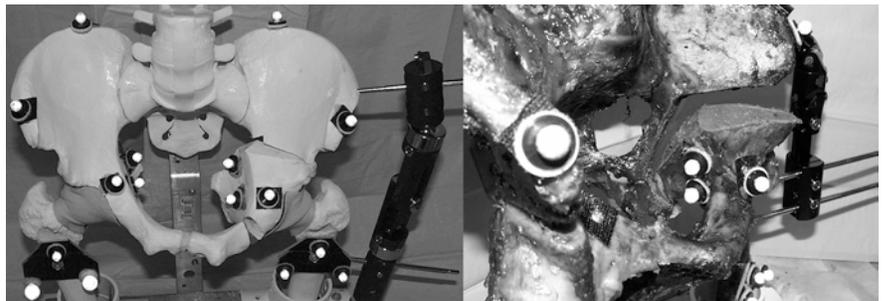
Childhood hip disorders, neuromuscular disorders, orthopedic trauma and sports medicine are a few of the interests for which retrospective and prospective outcome studies are currently underway. Each of the attendings in the Orthopedic Surgery department at Children's Hospital pursue outcomes research in their respective specialty areas. Treatment methods and clinical procedures are critically reviewed, answering questions regarding efficacy and success. Examples of current research include:

- Epidemiology and Treatment Outcomes of Pediatric Fractures
 - To further understand the causes of pediatric fractures and improve treatment.
- Bilateral Pelvic and Femoral Surgeries in Cerebral Palsy:
 - Comparison of Staged versus Same-Day Operations – (a retrospective review to determine clinical and financial differences)
- The Effect of Pavlik Harness Treatment on Mild Hip Dysplasia – (Analysis of outcomes in mild hip dysplasia comparing those rigorously treated Pavlik Harness with patients who were simply monitored)



Orthopedic Biomechanics Research Center (OBRC):

The focus of the OBRC is to complement and advance clinical decision making and understanding of orthopedic problems by using sophisticated analytical techniques incorporated from many different disciplines. The research spans orthopedic sub-specialties that include trauma, spinal deformity, congenital



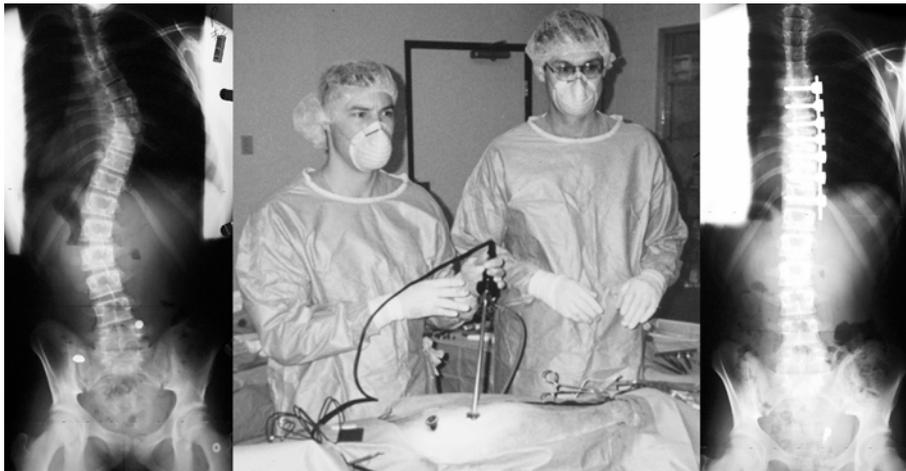
problems of the hip, and sports medicine. A material testing machine is utilized to apply loads to orthopedic implants and tissues. The OBRC collaborates with UCSD, SDSU and orthopedic industry companies. Pediatric orthopedic surgeons and biomechanical engineers function to design and complete all phases of each study. Examples of current research projects include:

- Fixation of Complex Femoral Fractures Using Different Materials and Insertion Sites – (to determine optimal material and surgical technique for fixation of both transverse and comminuted femur fractures)
- Biomechanical Differences Between Several Pelvic Osteotomies: Analysis of Motion and Stability – (to critically evaluate current pelvic osteotomy surgeries)

Center for Spinal Deformities:

This center pulls from clinical, biomechanical, and animal research to further investigate the understanding of scoliosis and augment the diagnosis and correction of spinal deformities. Through animal and cadaveric studies, questions regarding instrumentation, stability, and growth modulation are answered. Clinical studies focus on etiology, non-operative treatment methods, and surgical method outcomes, emphasizing minimally invasive approaches. Examples of current research projects include:

- Biomechanical Evaluation of Anterior Spinal Instrumentation – (to determine which combination of vertebral rods and inner body cages provides the greatest stability during physiologic testing)
- Use of an Asymmetrical Anterior Body Tether for Spinal Growth Modulation in an Immature Bovine Model – (to characterize the effects of vertebral body wedging and disc compression on growth and biomechanics)
- Surgical Correction of Scoliosis – (a prospective clinical study analyzing the outcomes of scoliosis surgery performed anterior open, posterior open, or anterior thoracoscopic)



Motion Analysis Laboratory:

This center functions in both clinical and research arenas. The Laboratory staff includes pediatric orthopedic surgeons led by Dr. Henry Chambers, biomechanical engineers, research physical therapists, kinesiologists, and administrative support. The aim of the lab is to restore, sustain and enhance the health and developmental potential of children through clinical and research studies. State of the art computer technology is used to obtain a detailed report of the functional mobility of a clinical patient, which assists in surgical or rehabilitation decision making. The addition of a 240 Hz 8-camera motion measurement system facilitates research in sports and biomechanical motion analyses. Examples of current research include:

- The Effect of Dilution on the Efficacy of Botulinum Toxin A in Ambulatory Spastic Cerebral Palsy Population- (to determine whether increasing the dilution provides improvement in symptomology and functionality)
- Logic Controlled Electromechanical Free Knee Orthosis Combined with Isocentric Reciprocal Gait Orthosis – Subcontractual agreement with Mayo Clinic, Rochester, (to develop foot switch hardware to incorporate in a free-knee orthosis. The lab is used to test the function of the orthosis under conditions of both standard lock-knee and free-knee-unlocked orthoses)



Special Features

Our program often receives recognition in the lay press, as well as in hospital, university, and trade publications.



Children's Hospital - San Diego was listed in the Feb. 2001 issue of Child Magazine as one of the ten best Children's Hospitals in the country. The Orthopedic Department's excellence was listed as one of the important programs at Children's Hospital.

A quarterly publication for UCSD Chancellor's Associates, Board of Overseers, alumni and friends



Chancellor's Report

UNIVERSITY OF CALIFORNIA, SAN DIEGO

Message from the Chancellor

Inside
this
issue:



Chancellor Robert C. Dynes

UCSD Chancellor's Report / Winter 2001

Regents approve efforts to unite UCSD Pediatrics and Children's Hospital

Plans to consolidate children's health services in San Diego to create a world-class center for pediatric care, research and teaching have now entered the final phase of discussion between physicians and administrators from UCSD and Children's Hospital and Health Center. In November, the University of California Board of Regents endorsed a draft affiliation agreement to integrate children's health services in a program based at Children's Hospital. The goal of this alliance is to create the shortest bridge possible between medical research discoveries

and the child's bedside, helping to ensure that San Diego's children get the best care available. The model being developed integrates programs, including research and teaching activities, with relocation of most of UCSD Medical Center's pediatric inpatient care programs to Children's Hospital and Health Center. UCSD Medical Center will continue to operate its neonatal intensive care unit and newborn nursery; and also will continue to care for pediatric burn patients in its Regional Burn Center. In addition, outpatient primary care services will remain in Hillcrest to facilitate access.

Advancing Expertise in Spinal Surgery



SPINAL FRONTIERS

Volume Five A Publication of GICD Issue One

Inside This Issue:

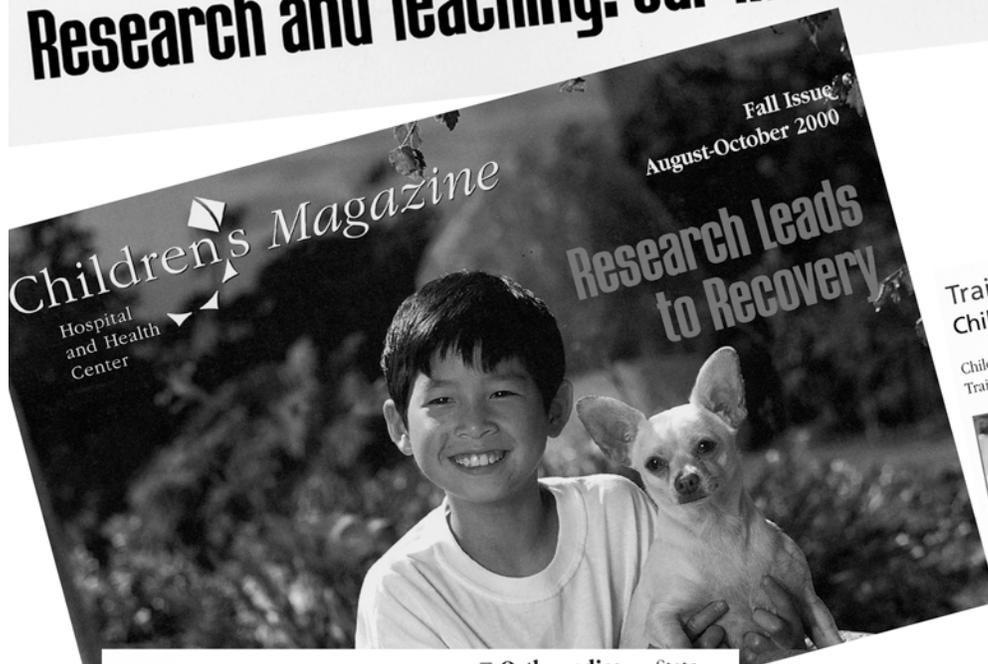
- 1 Thoracoscopic Approach for the Treatment of Idiopathic Scoliosis
Peter O. Newton, MD
- 5 Progressive Kyphoscoliosis in Thoracolumbar Spina Bifida
Marc R. Van Liefland, MD, Paul J.L.M. Wuisman, MD
- 8 Update on Spinal Applications for Recombinant Bone Morphogenetic Protein-2
Harvinder S. Sandhu, MD et al.
- 11 Symptomatic Flatback after Scoliosis Fusion to the Lower Lumbar Spine
Frank J. Schwab, MD, Jean-Pierre C. Farcy, MD
- 14 Unilateral C1/C2 Osteoarthritis
Dieter Grob, MD

Thoracoscopic Approach for the Treatment of Idiopathic Scoliosis

Peter O. Newton, MD
San Diego, CA, USA



Research and Teaching: Our Investment in the Future



Training Tomorrow's Leaders Children's Fellowship Programs

Children's is — at its very heart — a teaching hospital. Training new physicians is a part of our mission and is a responsibility we take very seriously.



Fellowships allow a doctor already trained in pediatrics to concentrate specifically on one particular area of pediatric care.

By becoming a national leader in the area of physician training, we can attract and retain the best and the brightest — bringing physicians to

Children's who will advance our clinical care and research capabilities. For those who understand and appreciate the power of this educational tool, there are opportunities to support and sponsor the following fellowships at Children's:

- Allergy • Craniofacial/Plastic Surgery • Dermatology
- Emergency Department • Endocrinology • Gastroenterology
- Genetics • Infectious Diseases • Intensive Care • Neonate
- Neurosurgery • Orthopedics • Otolaryngology • Pathology
- Psychiatry • Urology



■ **Orthopedics** — State-of-the-art diagnostic computers. Revolutionary spinal fusion surgery. Innovative drug therapies. The many research programs in orthopedics are astounding, but no more wondrous than the elation on a child's face when she realizes she may never need a wheelchair again.



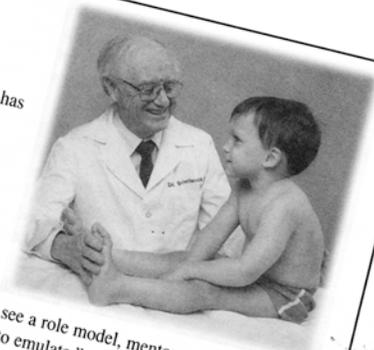
In pediatric healthcare, staying on the cutting edge of technology is more than a matter of convenience. It is a matter of saving the lives of children.

This is really what research and teaching are all about — and why they are the current focus of the Children's Inspiration Campaign.

As we seek out new ways to treat and prevent disease, we are saving lives. And as we help to train the next generation of pediatric physicians, we ensure a legacy of superior care for our children.

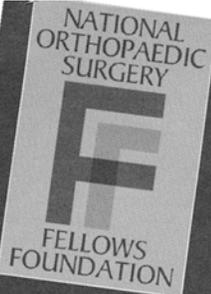
Sutherland, continued from page 1

Laboratories for children and adults. He has also authored two textbooks: "The Development of Mature Walking," and "Gait Disorders in Childhood and Adolescence," as well as numerous articles in orthopedic and other journals. He also has developed four original surgeries (including one that bears his name - the Sutherland Double Innominate Osteotomy). "Those who know David Sutherland don't usually think of his accomplishments," says Dr. Henry Chambers, Children's director of Orthopedics. "They are struck more by his humanity, modesty and compassion. They



see a role model, mentor and humanitarian to emulate."

For more information on Dr. Sutherland's Lifetime Achievement Celebration, call 576-5804.



OCTOBER 11, 2000
 Walid K. Yassir, MD
 Children's Hospital and Health Center
 3030 Children's Way Suite 410
 San Diego, CA 92123

BOARD OF DIRECTORS
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Dear Dr. Yassir :

The review panel of the National Orthopaedic Surgery Fellows Foundation (NOSFF) has completed review of your research grant application and we are pleased to inform you that you have been selected as one of eight to receive awards this year. We wish to commend you on the preparation of your proposal,

A Comparison of the Fixation Stability of the Bernese Periacetabular Osteotomy of Ganz with Tonnis' Modification of Steel's Triple Innominate Osteotomy

Advancing Expertise in Spinal Surgery

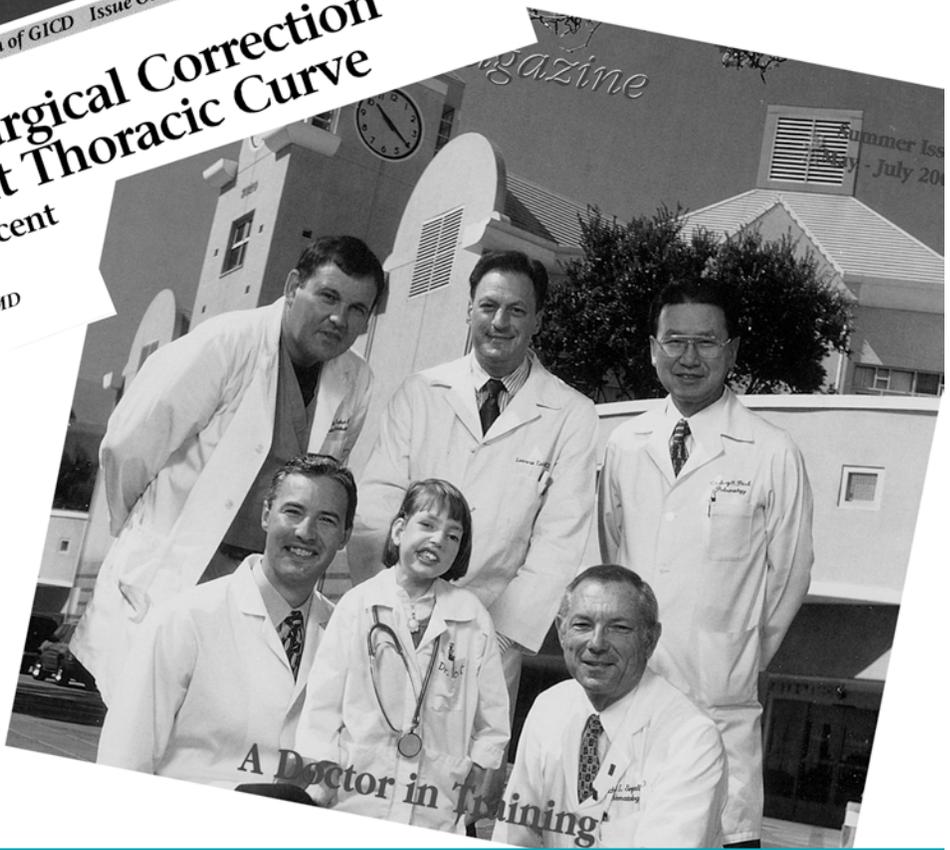
SPINAL FRONTIERS

Volume Six A Publication of GICD Issue One

- This Issue**
- 1 Choices for Surgical Correction of a Right Thoracic Curve
 Ronald G. Blackman, MD
 Jean Dubouset, MD
 Lawrence G. Lenke, MD
 Dennis R. Wenger, MD
 - 7 Post-Surgery Adult Flatback Syndrome
 Keith H. Bridwell, MD
 K.W. Hammerberg, MD
 Jean-Marc Vital, MD
 - 10 L5-S1 Severe Spondylolisthesis
 G. De Giorgi, MD
 Gregorio M. Arendar, MD
 Robert W. Gaines, MD

Choices for Surgical Correction of a Right Thoracic Curve in an Adolescent

Introduction
 Dennis R. Wenger, MD
 San Diego, CA



A Doctor in Training

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Chambers

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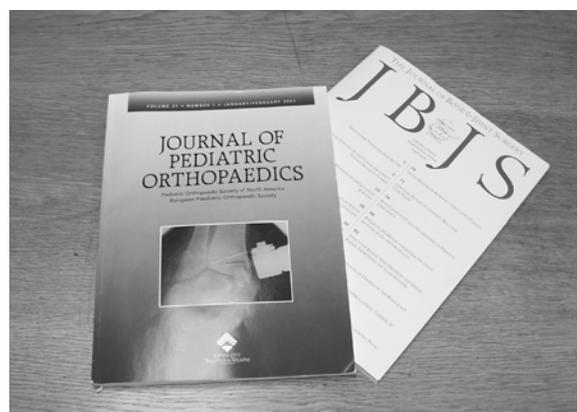
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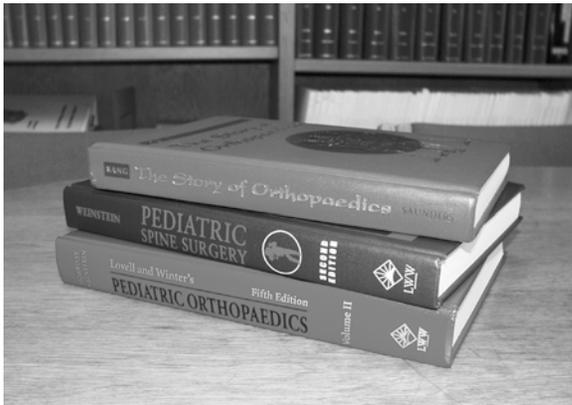
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Wallace

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Great orthopedic care requires a perfect cast.

Wenger

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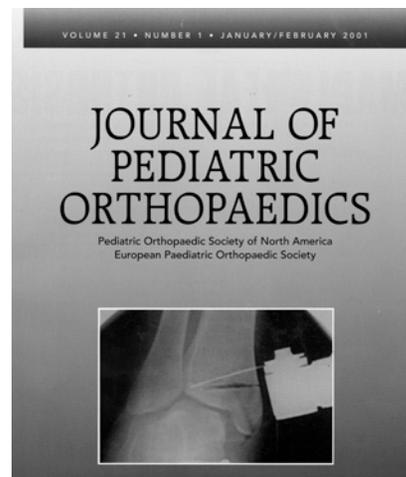
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Educational Programs

Visiting Professors at Children's Hospital-San Diego



Klaus Parsch - April 1999
Olga Children's Hospital
Stuttgart, Germany

Professor of Orthopedic Surgery
University of Heidelberg



Vern Tolo - March 2000
Children's Hospital - Los Angeles
Los Angeles, California

Professor of Orthopedic Surgery
University of Southern California

The annual visiting professor program at children's hospital - San Diego brings orthopedic surgeons with an international reputation to exchange ideas with our staff, fellows, residents, and medical students.

Note: Our April 2001 Visiting Professor will be Jean Dubousset, Professor of Orthopedic Surgery, University Rene Descartes, Paris.

Presentation s



Chambers

Use of Botulinum Toxin in the Management of the Near Drowning Patient
American Academy for Cerebral Palsy and Developmental Medicine
San Antonio, TX September 1998 (Nominated for Richmond Award)

Occupational Therapy and the Upper Extremity in Cerebral Palsy
Occupational Therapy Association of California
San Diego, CA October 1998

Les Problemes Orthopediques chez les Handicapes Cerebraux
College de Medicine et de Pharmacie
Port-au-Prince, Haiti January 1999

Botulinum Toxin: Action and Indications for Use in Spasticity Management.
American Academy of Orthopedic Surgeons
National Association of Orthopedic Nurses
Anaheim, CA February 1999

Intramedullary Fixation for Diaphyseal Radius and Ulna Fractures
Western Orthopedic Association
Coronado, CA, August 1999

The Role of Rectus Femoris Transfer in Cerebral Palsy
Denver Children's Hospital
Denver, CO, August 1999

The Treatment of Spasticity
National Developmental Disabilities Conference
San Diego, CA September 1999

Fractures as Viewed by Different Clinicians: Radiology, Orthopedics, and Pediatrics
And Social Work (with Wendy Wright, MD, Mel Senac, MD, and Andrea MacKay, LSW)
San Diego Conference on Responding to Child Maltreatment
San Diego, CA January 2000

The Natural History of Equinus in Cerebral Palsy
Discussant
Equinus Ankle in Cerebral Palsy Workshop

American Academy for Cerebral Palsy and Developmental Medicine
United Cerebral Palsy Research and Education Foundation
Phoenix, AZ February 2000

Extraarticular Drilling of Osteochondritis Dissecans Lesion of the Knee in Children and Adolescents
Pediatric Orthopedic Society of North America
Vancouver, British Columbia May 2000

Percutaneous Lavage of the Septic Hip in Children
Pediatric Orthopedic Society of North America
Vancouver, British Columbia May 2000
Crouch Gait and “Apparent Equinus” in Cerebral Palsy
International Symposium on the Use of Botulinum Toxin in Cerebral Palsy
Lake Maggiore, Italy June 2000

Pharmacologic and Surgical Treatment of Congenital Torticollis
Pediatric Skull Deformities and Congenital Torticollis: How to Avoid Errors in Diagnosis and Treatment-An
update for Pediatricians
San Diego, California August 2000

College de Medecine et de Pharmacie
Port-au-Prince, Haiti
January 1999

Kaye Wilkins Pediatric Orthopedic Visiting Professor
University of Texas at San Antonio
Christus Santa Rosa Hospital
Wilford Hall Air Force Medical Center
San Antonio, TX
April 2000

V∞ Congreso Internacional Del Capitulo Argentino Neuroortopedia
Buenos Aires, Argentina
September 2000

Canadian Spasticity Advisory Board
Toronto, Ontario, Canada
September 2000

Richard Lindseth Visiting Professor in Pediatric
Orthopedics
University of Indiana
Indianapolis, IN
September 2000

CONFERENCES HOSTED - Chambers

Pediatric and Adolescent Sports Medicine

Page 34



Ready for real life! (graduation - 2000)

San Diego, California March 1999
Course Co-Director (with Mark Bracker, MD)
Brain Injuries in Children
Knee Ligament Injuries
Torsional Deformities of the Lower Extremities
Flatfeet in Children
Sports in Children with Disabilities

Pediatric and Adolescent Sports Medicine
San Diego, California February 2000
Course Co-Director (with Mark Bracker, MD)
Knee Ligament Injuries in Children
Sports in Children with Disabilities

Developmental Disabilities: A Primer for Primary Care Providers
San Diego, California July 2000
Course Director
What are the Developmental Disabilities?
Introduction to the NCMRR and WHO Models of Disability
Cerebral Palsy
Spasticity: Introduction and Management
Treatment of Spasticity: Oral Medication, Botulinum Toxin, Intrathecal Baclofen, and Rhizotomy
The Adult with a Disability- Medical, Social and Economic Concerns

Management of Spasticity in Children with Cerebral Palsy: A integrated Approach.
San Diego, California August 2000
Course Director with Mark Gormley, MD
Examination of the Child with CP
Lower Extremity Surgery in CP

Interpretation of Motion Analysis Data
San Diego, CA October 2000
Pattern Recognition at the Ankle
Clinical Applications of Kinematic Data
The Future of Gait Analysis
Laboratory Session Instructor

INSTRUCTIONAL COURSE FACULTY - Chambers

American Academy For Cerebral Palsy and Developmental
Medicine

San Antonio, TX September 1998
Instructional Courses

Functional Problems and Treatment of the Hip in Patients with
Cerebral Palsy
Functional Problems and Treatment of the Knee in Patients with
Cerebral Palsy



Our specialized Botox clinic contributes to state-of-the-art care for cerebral palsy patients.

Committees

Committee on Treatment Outcome-Chairman
Committee on International Affairs

Interpretation of Motion Analysis Data

San Diego, CA September 1998

Administration and Funding of Motion

Analysis Lab

Outcome Research in Motion Analysis
Laboratory Workshop Instructor

American Academy of Pediatrics

San Francisco, CA October 1998

Disabilities and the Child Athlete

Cerebral Palsy: New Developments for Optimal Management

Los Angeles, CA March 1999

Surgical Treatment of Cerebral Palsy
Spasticity Workshops

American Academy for Cerebral Palsy and Developmental Medicine

Washington, DC September 1999

Instructional Courses

Functional Problems and Treatment of the Ankle in Patients with Cerebral Palsy

Functional Problems and Treatment of the Knee in Patients with Cerebral Palsy

Walking into Adulthood- Adults with Cerebral Palsy

Breakfast with the Experts: Crouch Gait and Single Stage Surgery

Committees

Committee on Treatment Outcomes-Chairman



Fellow graduation day - 1999.

Mubarak

Mubarak, SJ: Fractures About the Knee. Visiting Professor. Hospital de Especialidades Centro Medico Nacional de Occidente Division de Ortopedia meeting, Puerto Vallarta, Mexico, August 1, 1998.

Mubarak, SJ: Iatrogenic Tibio-Fibular Synostosis in the Child: Effects on Growth, Alignment and Function. International Pediatric Orthopedic Think Tank Annual Meeting, London, England, October 23, 1998.

Mubarak, SJ: DDH and Dislocation. Instructional Course Instructor. American Academy of Orthopedic Surgeons annual meeting, Anaheim, CA, February 5, 1999.

Mubarak, SJ: Femoral Fractures in Children and Adolescents: Consensus and Controversy. Cost Analysis of Femoral Fractures in Children. Instructional Course Instructor. American Academy of Orthopedic Surgeons annual meeting, Anaheim, CA, February 8, 1999.

Mubarak, SJ: Scoliosis: Etiology, Non-operative Treatment. San Diego Spinal Conference, San Diego, CA, February 13, 1999.

Mubarak, SJ: Compartment Syndromes. Guest Lecturer. SICOT Annual Meeting, Sydney, Australia, April 15, 1999.

Mubarak, SJ: Supracondylar Fractures. Amer. Osteopathic Academy of Orthopedics, 39th Annual Postgraduate Seminar, Scottsdale, AZ, May 2, 1999.

Mubarak SJ: Lateral Condylar Fractures. Amer. Osteopathic Academy of Orthopedics, 39th Annual Postgraduate Seminar, Scottsdale, AZ, May 2, 1999.

Mubarak, SJ: Tibiofibular Synostosis Complicating Leg Surgery in Children: Effects on Growth and Alignment. Amer. Bone & Joint Surgeons annual meeting, Orlando, FL, May 14, 1999.

Mubarak, SJ: Treatment of Longitudinal Epiphyseal Bracket in the Foot Before Ossification. POSNA annual Meeting, Lake Buena Vista, FL, May 17, 1999.

Mubarak, SJ: Pericapsular Acetabuloplasty for Treatment of the Dysplastic Hip in Cerebral Palsy: Results and Complications in 104 Patients. POSNA annual meeting, Lake Buena Vista, FL, May 19, 1999.

Mubarak, SJ: Supracondylar Fractures: Evaluation and Work-up. Instructional Course Instructor. AAOS Orthopedic Trauma: Perspectives for the New Millennium Course, Santa Fe, NM, May 21, 1999.

Mubarak, SJ: Elbow Injuries in Children. Instructional Course Instructor. AAOS Orthopedic Trauma: Perspectives for the New Millennium Course, Santa Fe, NM, May 21, 1999.

Mubarak, SJ: Femur Fractures: Nonoperative Management. Instructional Course Instructor. AAOS Orthopedic Trauma: Perspectives for the New Millenium Course, Santa Fe, NM, May 21, 1999.

Mubarak, SJ: Management of Elbow Fractures in Children. WOA annual meeting, San Diego, CA, August 1, 1999.

Mubarak, SJ: Management of Fractures of the Distal Humerus in the Child. Visiting Professor. Southern Illinois University School of Medicine, Springfield, IL, September 10, 1999.

Mubarak, SJ: Management of Femoral Shaft Fractures in Children. Visiting Professor. Southern Illinois University School of Medicine, Springfield, IL, September 10, 1999.

Mubarak, SJ: Diagnosis and Management of Acute Compartment Syndrome. Visiting Professor. Southern Illinois University School of Medicine, Springfield, IL, September 10, 1999.

Mubarak, SJ: Anterior Ankle Compartment Syndrome. International Pediatric Orthopedic Think Tank Annual Meeting, Montreal, Canada, October 14, 1999.

Mubarak, SJ: Orthopedic Management of Children with Duchenne Muscular Dystrophy. Visiting Professor, Shriners Hospital for Children, Greenville, SC, November 18, 1999.

Mubarak, SJ: Early Management of Hip Dysplasia: Use of Ultrasound and the Pavlik Harness. Visiting Professor, Shriners Hospital for Children, Greenville, SC, November 18, 1999.

Mubarak, SJ: Acute Compartment Syndromes. Pan Pacific Surgical Society, Honolulu, HI, February 1, 2000.

Mubarak, SJ: Femoral Fracture Management and Cost Analysis. Pan Pacific Surgical Society, Honolulu, HI, February 1, 2000.

Chambers, HG, Bruffey, J, Mubarak, SJ: Extraarticular Drilling of Osteochondritis Dissecans Lesions of the Knee in Children and Adolescents. POSNA annual meeting, Vancouver, Canada, May 2, 2000.

Mubarak, SJ: Extensor Retinaculum Syndrome of the Ankle. POSNA annual meeting, Vancouver, Canada, May 4, 2000.

Mubarak, SJ: Early Detection and Treatment and it's Complications: Pavlik Harness. IFPOS Symposium, Vancouver, Canada, May 4, 2000.

Mubarak, SJ: Management of Femur Fractures. Visiting Professor, University of Vermont, Burlington, VT, May 19, 2000.

Mubarak, SJ: Management of Cerebral Palsy Hip. Visiting Professor, University of Vermont, Burlington, VT, May 20, 2000.

Mubarak, SJ: Management of Cerebral Palsy Foot/Ankle. Visiting Professor, University of Vermont, Burlington, VT, May 20, 2000.

Mubarak, SJ: Arthrography: When and How is it Helpful? Nemours and DuPont Institute 3rd International Pediatric Orthopedic Symposium, San Francisco, CA, May 26, 2000.

Mubarak, SJ: Common Fractures about the Elbow. Nemours and DuPont Institute 3rd International Pediatric Orthopedic Symposium, San Francisco, CA, May 27, 2000.

Mubarak, SJ: Compartment Syndromes: Common and Unusual. Nemours and DuPont Institute 3rd International Pediatric Orthopedic Symposium, San Francisco, CA, May 28, 2000.

Mubarak, SJ: Management of Supracondylar Fractures. Visiting Professor. University of Iowa, Iowa City, IA, June 2, 2000.

Mubarak, SJ: Gorilla Tactics in Orthopedic Surgery. Visiting Professor. University of Iowa, Iowa City, IA, June 2, 2000.

Mubarak, SJ: Supracondylar Fractures: Evaluation and Management. AAOS Orthopedic Trauma: Perspectives for the New Millennium, Santa Barbara, CA, June 9, 2000.

Mubarak, SJ: Femur Fractures: Non-operative Management. AAOS Orthopedic Trauma: Perspectives for the New Millennium, Santa Barbara, CA, June 9, 2000.

Mubarak, SJ: Fractures Around the Knee: AAOS Orthopedic Trauma: Perspectives for the New Millennium, Santa Barbara, CA, June 9, 2000



The orthopedic technician team provides not just cast and equipment expertise but in addition, excellence in patient case management and patient education.

Mubarak, SJ: Compartment Syndromes of the Forearm. Instructional Course Instructor. AAOS Surgical Techniques for Managing Pediatric Orthopedic Trauma, Rosemont, IL, July 7, 2000.

Newton

Newton, P.O., Shea, K.G., Granlund, K.: Defining the Pediatric Spinal Thoracoscopy Learning Curve: 65 Consecutive Cases. 33rd Annual Meeting of the Scoliosis Research Society, New York City, NY, September 18, 1998.

Newton, P.O., Shea, K.G., Granlund, K.: Defining the Pediatric Spinal Thoracoscopy Learning Curve: 65 Consecutive Cases. 13th Annual Meeting of the North American Spine Society, San Francisco, CA, October 29, 1998.

Newton, P.O.: Defining the Pediatric Spinal Thoracoscopy Learning Curve. 66th Annual Meeting of the American Academy of Orthopaedic Surgeons, Pediatric Orthopedic Society of North America Specialty Day, Anaheim, CA, February 7, 1999.

Evans, S.J., Newton, P.O., Wathey, C., Estabrook, M., Johnson, M.C., Bradley, J.S., Ballock, R.T.: A Comparison of Early vs. Late Conversion from Intravenous to Oral Therapy in the Treatment of Bacterial Arthritis. American Federation for Medical Research, Western Section, Carmel CA, January 29, 1999, J of Investigative Medicine 47(2):51A, 1999.

Evans, S.J., Newton, P.O., Wathey, C., Estabrook, M., Johnson, M.C., Bradley, J.S., Ballock, R.T.: A Comparison of Early vs. Late Conversion from Intravenous to Oral Therapy in the Treatment of Bacterial Arthritis. Annual Meeting of the Pediatric Orthopedic Society of North America, Lake Buena Vista, FL, May 19, 1999.

Newton, P.O., Evans, S.J., Wathey, C., Estabrook, M., Johnson, M.C., Bradley, J.S., Ballock, R.T.: A Comparison of Early vs. Late Conversion from Intravenous to Oral Therapy in the Treatment of Bacterial Arthritis. 63rd Annual Meeting of the Western Orthopedic Association, San Diego, CA, July 31, 1999.

Newton, P.O., Shea, K.G., Granlund, K.: Defining the Pediatric Spinal Thoracoscopy Learning Curve: 65 Consecutive Cases. 63rd Annual Meeting of the Western Orthopedic Association, San Diego, CA, August 4, 1999.

Lee, S., Mahar, A., Farnsworth, C., Weinstein, C., Newton, P.O., Betz, R.R., Lenke, L.G., Lowe, T.G., Clements, D.H., Merola, A., Haheer, T., Newton, P.O., Wenger, D.R., Huss, G.K., Blanke, K.: Comparison of Anterior vs. Posterior Instrumentation for Correction of Thoracic Adolescent Idiopathic Scoliosis: Analysis by an Objective Radiographic Scoring System. 34th Annual Meeting of the Scoliosis Research Society, San Diego, CA, September 23, 1999.

Lenke, L.G., Betz, R.R., Merola, A., Clements, D.H., Newton, P.O., Lowe, T.G.: Curve Prevalence of a New Classification of Adolescent Idiopathic Scoliosis: Can Classification Predict Treatment?, 67th Annual Meeting of the American Academy of Orthopedic Surgeons, Orlando, FL, March 17, 2000.

Mahar, A., Lee, S., Newton, P.O.: Biomechanical Analysis of Ender's Nail Fixation in Transverse and Comminuted Fractures of the Femur. 27th Annual David H. Sutherland Pediatric Visiting Professorship, San Diego, CA, March 29, 2000.

Sink, E., Newton, P.O.: Sagittal Plane Assessment of the Luque-Galveston Instrumentation Technique. 27th Annual David H. Sutherland Pediatric Visiting.: Thoracoscopic Spinal Fusion – Autograft vs. Allograft Gel in a Caprine Model. 27th Annual David H. Sutherland Pediatric Visiting Professorship, San Diego, CA, March 29, 2000.

Newton, P.O., Mahar, A. T., Lee, S.S.: Ender's Nail Fixation of Pediatric Femur Fractures: A Biomechanical Analysis Using Synthetic Bone Model. Annual Meeting of the Pediatric Orthopedic Society of North America, Vancouver, BC, May 2, 2000.

Betz, R.R., Lenke, L.G., Lowe, T.G., Clements, D.H., Merola, A., Haheer, T., Newton, P.O., Wenger, D.R., Huss, G.K., Blanke, K.: Comparison of Anterior versus Posterior Instrumentation for Correction of Thoracic Adolescent Idiopathic Scoliosis: Analysis by an Objective Radiographic Scoring System. Annual Meeting of the Pediatric Orthopedic Society of North America, Vancouver, BC, May 3, 2000.



Another happy fellow graduation day - 2000

Chambers, H.G., Meyers, L., Wallace, C.D., Newton, P.O.: Percutaneous Lavage of the Septic Hip in Children. Annual Meeting of the Pediatric Orthopedic Society of North America, Vancouver, BC, May 3, 2000.

Newton, P.O.: Video Demonstration: Thoracoscopic Treatment of Scoliosis. Anterior Treatment of Scoliosis Seminar, Chicago, IL, December 4, 1998.

Newton, P.O.: Thoracoscopic Correction of Pediatric Spinal Deformity. The Management of Vertebral Intercorporeal Disorders, GICD Meeting, Chicago, IL, December 6, 1998.

Newton, P.O.: Thoracoscopic Approach to the Anterior Spine, San Diego Scoliosis Association Spinal Conference, February 13, 1999.

Newton, P.O.: Management of Femoral Fractures in Children Including Use of Elastic Femoral Intramedullary Nails. Pediatrics Symposium at 63 rd Annual Meeting of the Western Orthopedic Association, August 1, 1999.

Visiting Professor, AACD Rehabilitation Hospital, Sao Paulo, Brazil, June 22 – 25, 1999

Pediatric Spinal Thoracoscopy, Indications and Technique

Thoracoscopic Anterior Spinal Release, Video demonstration

Spinal Thoracoscopy Learning Curve and Outcomes

Endoscopic Spinal Surgery Below the Diaphragm

The Utility of 3D CT Scanning in Congenital Scoliosis

Early Conversion to Oral Antibiotics in Pediatric Septic Arthritis

Visiting Professor, Italian Hospital, Buenos Aires, Argentina, June 28 – July 1, 1999

Pediatric Spinal Thoracoscopy, Indications and Technique

Thoracoscopic Anterior Spinal Release, Video demonstration

Spinal Thoracoscopy Learning Curve and Outcomes

Argentine Orthopedic and Traumatology Association, VATS in Adolescent Idiopathic Scoliosis

Experimental Lab VATS Demonstration

Newton, P.O.: Thoracoscopic Instrumentation, Animal Studies. Scoliosis Research Society Tutorial, Philadelphia, PA, October 26, 1999

Newton, P.O.: Limb Length Equalization. AAOS Course, Pediatric Orthopedics: Current Perspectives and Techniques, San Diego, CA, December 3, 1999.

Newton, P.O.: Spinal Problems in Young Athletes. AAOS Course, Pediatric Orthopedics: Current Perspectives and Techniques, San Diego, CA, December 3, 1999.

Newton, P.O.: Anterior Release Of Adolescent Idiopathic Scoliosis / Kyphosis with Fusion. Endoscopic Approaches to the Thoracic Spine, Medical Education and Research Institute Course, Memphis, TN, February 5, 2000.

Newton, P.O.: Thoracoscopy for scoliosis. National Association of Orthopedic Nurses AAOS Annual Meeting, Orlando, FL, March 15, 2000.

Newton, P.O.: Anterior Release Of Adolescent Idiopathic Scoliosis / Kyphosis with Fusion. Endoscopic Approaches to the Thoracic Spine, Medical Education and Research Institute Course, Memphis, TN, April 1, 2000.

Visiting Professor, 30th Anniversary Course of the Scoliosis Center of the Italian Hospital of Buenos Aires: Advances in the treatment of deformities of the vertebral column. Buenos Aires, Argentina, June 29 – 30, 2000

Presentation: Experimental Studies in Thoracoscopic Anterior Fusion and Instrumentation

Panel Discussion: Scoliosis in Children and Adults

Moderator: Congenital Scoliosis and Kyphosis

Presentation: Clinical Experience of Thoracoscopic Anterior Scoliosis Correction

Panel Discussion Scheuermann's, Spondylolysis, Spondylolisthesis

Newton, P.O.: The Learning Curve in Thoracoscopic Procedures: Orthopedic Perspective. AAOS Minimally Invasive Spine Surgery Course, July 21-23, 2000.

Sutherland

"Instrumented Motion Analysis: A Clinical Tool
International Gait Symposium.
Hong Kong, February 8-16, 1998.

"Cerebral Palsy: The Dynamics of Diagnosis and Treatment" Discovery International, Boston, MA February 1998.

"The History of Modern Gait Analysis"
David H. Sutherland Visiting Professorship
San Diego, CA April 1998.

"Double-Blind Study of Effects on Gait of Injections into the Gastrocnemius Muscle in Cerebral Palsy Patients".

North American Society of Gait and Clinical Movement Analysis (NASGCMA), San Diego, CA April 1998.

1999

International Society of Biomechanics XVII Congress

Objective measurements in clinical decisions for children with cerebral palsy. Calgary, Canada August 8-13, 1999

2000

“The Treatment of Cerebral Palsy with Botulinum Toxin (BOTOX) Type A”

6th Annual Conference of Paediatric Orthopaedics

Delhi, India, February 29 and March 2, 2000

“Orthopaedic Evaluation of Cerebral Palsy”, “Double-Blind Study of Effects on Gait of Injections into the Gastrocnemius Muscle in Cerebral Palsy Patients”, “Overview of Pharmacological Management (BOTOX)”, “Spastic Rectus and Stiff Knee Gait in Cerebral Palsy”, “The Foot in Cerebral Palsy”, “Pattern Recognition of Knee Problems and Their Orthopaedic Management”, “Double Innominate Sutherland Osteotomy”.

Paediatric Orthopaedic Society of India (POSI)

Bombay, India, March 5 – 8, 2000

Wallace:

Myelomeningocele (Spina Bifida); Developmental Disabilities, UCSD School of Medicine/Children’s Hospital and Health Center, La Jolla, Ca. 7/27/00

Fractures of the Lower Extremities, Scripps Mercy Hospital Pediatric Grand Rounds, San Diego, Ca. 7/19/00

Managing Spasticity in Cerebral Palsy with Review of Continuous Intrathecal Medication Background, San Diego, Ca. 6/16/00

Osteomyelitis and Joint Sepsis Orthopaedic resident’s teaching conference, San Diego, Ca.6/23/00

Congenital Upper Extremity Erb’s Palsy, Sprengels and Torticollis, Scripps Mercy Hospital Pediatric Grand Rounds, San Diego, Ca. 5/17/00

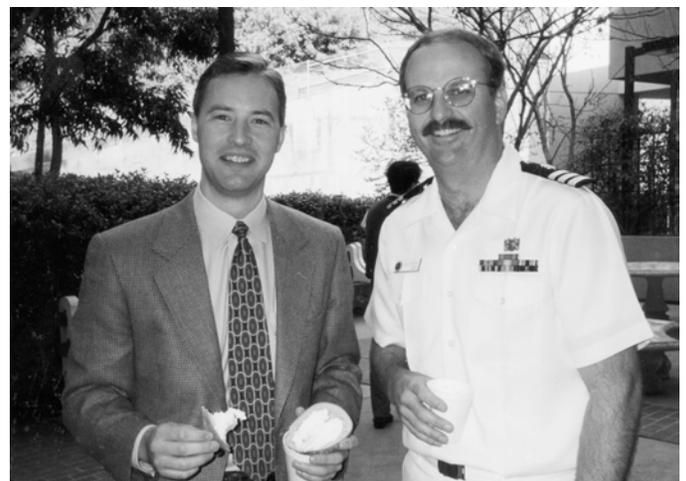
Managing Toeing In/Metatarsus Varus and Clubfoot Orthopaedic resident’s teaching conference, San Diego, Ca. 5/5/00

Osteomyelitis and Joint Sepsus

Orthopaedic resident’s teaching conference, San Diego, Ca. 3/10/00

Managing Toeing In/Metatarsus Varus and Clubfoot Orthopaedic resident’s teaching conference, San Diego, Ca. 1/7/00

Pediatric Orthopedics in the Neonatal Period, Pediatric Grand Rounds, Scripps/Mercy Hospital, San Diego Ca. 10/21/99



Our affiliation with the San Diego Naval Hospital Training Program includes training navy residents as well as cooperation in educational programs.

Development of the Musculoskeletal System
UCSD School of Medicine, 11/1/98

Fine Wire EMG Use in the Evaluation of Upper Extremities in the Patient with Cerebral Palsy. Children's Hospital Gait Course 10/10/98

Common Pediatric Hand Injuries, UCSD Orthopaedic Resident's teaching conference, San Diego, CA 9/16/98

Wenger

1998

"Technique for Triple Innominate Osteotomy Based on 3-D CT Analysis of Complications"

POSNA Annual Meeting
Cleveland, OH, May 1998

"Evaluation and Classifications of Hip Dysplasia Using Three Dimensional CT Scans (3D-C)"

"Early Surgical Correction of Residual Dysplasia: The San Diego Children's Hospital Approach"
Orthopædica Belgica and Belgian Association of Paediatric Orthopedic (BAPO)
Lourain la Neuva, Belgium, May 1998

"Osteotomy for AVN: The Role of Lesion Size, Technical Tips"

"Trap Door Procedure"

"Planning Osteotomies Based on 3-D Imaging"

"Other Options for Acetabular Reconstruction"

"Partial Physeal Closure: Prevention, Assessment and Treatment"

The International Pediatric Orthopedic Symposium
The Nemours Children's Clinics and The Alfred duPont Hospital for Children
of the Nemours Foundation
Orlando, FL, May 1998

"Flat Foot: Current Diagnosis and Treatment"

"Developmental dysplasia of the Hip: Treatment in the Older Child"

"Management of Neuromuscular Scoliosis"

"Management of Hip Problems in Cerebral Palsy"

Sociedad Argentina de Ortopedia Y Traumatologia Infantil
Buenos Aires, Argentina, October 5 – 7, 1998

"Human Hip Dysplasia"

"Dysplasia and Developmental Dislocation of the Hip: Techniques of Open Reduction"

"The Hip in Cerebral Palsy"

"Perthes Disease: The Current Status"

"Perthes Disease: Evolution of Other Current Containment Strategies"

International Paediatric Orthopedic Hip Surgery Course
Zurich, Switzerland, October 26 – 27, 1998

"Surgical Treatment – Perthes Disease (Other Containment Strategies)"

"Delayed Onset Paraplegia Following Scoliosis Surgery"

IPOTT

Moderator of Preliminary Scientific Program
London, England, October 1998

“The Evolution of Surgical Management for Thoracic Scoliosis”
Management of Intercorporeal Disorders, GICD – USA
Chicago, IL, December 1998

“Patient Selection – Indications for Anterior Surgery in Pediatric Scoliosis”
“Indications for Combined Anterior and Posterior Surgery”
Anterior Treatment of Scoliosis, GICD – USA
Chicago, IL, December 1998

1999

“Legg-Calve-Perthes Disease: Current Concepts”
“Developmental Hip Dysplasia and Dislocation”
American Academy of Orthopedic Surgeons Instructional Course Lecture
Annual Meeting
Anaheim, CA, February 1999

“Managed Care Has Lead to a Decreased Quality of Orthopedic Care for Most Children”
Special Debate (Pro: The Rev. Wilton Bunch, MD; Con: Dennis R. Wenger, MD)
Pediatric Orthopedic Society of North America
Specialty Day
Anaheim, CA, February 1999

“Surgical Correction of Adolescent Scoliosis”
The Scoliosis Association, Inc. National Organization
San Diego Spinal Conference
San Diego, CA, February 1999

“Avascular Necrosis in Slipped Capital Femoral Epiphysis – Analysis and Treatment Concepts”
“The Trapdoor Procedure for Avascular Necrosis of the Hip in Adolescents”
“Hip Dysplasia: Acetabular Analysis Using Three-Dimensional Computed Tomography Studies”
“Triple Innominate Osteotomy for Hip Dysplasia: Lessons Learned from Three-Dimensional Computed Tomography (3D-CT) Studies”
Fundacion Mapfre Medicina, Chair: Dr. Javier Albaniana
Madrid, Spain, March 1999

“Hip Dysplasia in Childhood”
“3-D CT Analysis of Hip Dysplasia”
“Legg-Perthes Disease – Current Concepts”
Children’s Hospital Medical Center – Cincinnati
Annual Spring Visiting Professor
Cincinnati, Ohio, April 22-24, 1999

“Acetabular Rotation in the Older Child: 3-D CT Analysis of the Triple Innominate Osteotomy”
The Salter Society Annual Meeting
The Hospital for Sick Children, Division of Orthopedic Surgery
Toronto, Canada, May 1999

“Intramedullary Pins and Rods: Indications and Complications”
“Development Dysplasia of the Hip: Diagnosis and Treatment Strategies”

“Angular Deformities of the Lower Limbs in Children:
Treatment Strategies”

Philippine Orthopedic Association
Golden Anniversary Congress
Committee on Scientific Programme
Manila, Philippines, November 1999

“Analysis of Shelf Acetabuloplasty Using 3-D CT
Methods”

International Pediatric Orthopedic Think Tank Meeting
Montreal, Canada
October 13-16, 1999

2000

“Flat Feet and Torsional Deformities”

Pediatric & Adolescent Sports Medicine Conference
San Diego, CA
February 17-19, 2000

“Lateral Column Lengthening for the Pediatric Flat Foot”

“The San Diego CP Hip Osteotomy”

“The Ganz Periacetabular Osteotomy”

Pediatric Orthopedic Society of North America
Orlando, Florida
March 18, 2000

“Comparison of Anterior Versus Posterior

Instrumentation for Correction of Thoracic Adolescent Idiopathic
Scoliosis: Analysis by an Objective Radiographic Scoring System”

Vancouver, WA

May 01-03, 2000

“Management of Elbow Fractures in Children”

“Management of the Unstable Hip in Cerebral Palsy”

“Scoliosis Treatment in Cerebral Palsy”

“Idiopathic Scoliosis – Current Evaluation and Management”

“Surgical Treatment of Hip Dysplasia in Children”

“Complications of Pelvic Osteotomy”

“Triple Innominate Osteotomy in Hip Dysplasia”

“San Diego Hip Osteotomy for Cerebral Palsy”

6th Annual Conference of Paediatric Orthopedic Society of India
Mumbai, India
March 05-08, 2000

“Severe Progression of Flatfoot”

“Deformity Following Healing of Tibial Shaft Fracture in Mild Valgus”

International Pediatric Orthopedic Think Tank
Stuttgart, Germany



Clubfoot casting requires staff focus.

September 21 – 23, 2000

“Legg-Calve-Perthes Disease”

“Treatment by Triple Innominate Osteotomy – The Child’s Hip (Symposium)

University Clinic – Vienna Austria (Vienna Kvankenhaus)

September 25, 2000

“Legg-Calve-Perthes –Current Concepts”

“Diagnosis and Treatment of Idiopathic Scoliosis”

“DDC – Treatment in the Older Child”

“Management of Common Angular and Rotatory

Abnormalities of Lower Extremities”

SMOP 2000

Guanajuato, Mexico

November 02-04, 2000

Visiting Professorships and Lectures

Visiting Professor

20th Brandon Carrell Visiting Professorship – Texas Scottish Rite Hospital for Children

Texas Scottish Rite Hospital for Children, Dallas, TX, April 1998

“The Orthopedic Career - Managed Care for your Life”

“Treating Scoliosis in Adolescents - A Generation of Progress”

“Analysis and Treatment of Residual Hip Dysplasia in Children - The San Diego Children’s Hospital Approach”

Visiting Professor – Kernan Children's Hospital and the University of Maryland Hospitals

Baltimore, MD, June 1998

“The Surgical Treatment of Adolescent Idiopathic Scoliosis: A Generation of Change”

“The Management of Residual Hip Dysplasia in Childhood and Adolescence - The San Diego Children’s Hospital Approach”

Visiting Professor

First International Course of Pediatric Orthopedic Hip Surgery

Galgrist Clinic – University of Zurich

Zurich, Switzerland, October 26-27, 1998

“Human Hip Dysplasia: Introductory Lecture”

“Indications; and Techniques for Acetabuloplasties”

“Indications and Technical Details”

“Dysplasia and Developmental Dislocation of the Hip – Technique of Open Reduction”

“The Hip in Cerebral Palsy – An Introduction to the Problem

“Perthes Disease”

“Evolution of Current Containment Strategies”

Visiting Professor – Cincinnati Children's Hospital

Pediatric Hip Symposium

Cincinnati, OH, April 1999

“Residual Hip Dysplasia in childhood – Early vs. Late Treatment”

“Legg Perthes Disease: Current Concepts”

“Human Hip Dysplasia – The Current Status”

2000

Eugene Rogala Visiting Professor in Pediatric Orthopedic
Shriners Hospital for Children – Canada, Montreal Children’s Hospital

Department of Pediatric Orthopedic Surgery

Montreal (Quebec) Canada, November 16-17, 2000

“Legg Perthes Disease – Evolution to Triple Innominate
Osteotomy”

“Developmental Dysplasia of the Hip, Treatment in the Older
Child”

“Surgical Treatment of Idiopathic Scoliosis – Evolution to
Current Methods”

“Managing Common Angular and Rotary Abnormalities of
Lower Extremities”



The academic office provides a cheerful greeting to our many visitors.

Akbarnia

Akbarnia, B.A.: Spinal Instrumentation Without Fusion For The
Treatment Of Progressive Early Onset Scoliosis. Seminar On Anterior And Pediatric Deformity Solutions,
New York, New York, September 20, 1998.

Akbarnia, B.A.: Principles Of Spinal Instrumentation. 7th Japanese Spinal Instrumentation Society Annual
Meeting (Presidential Guest), Sapporo, Japan, October 10, 1998.

Akbarnia, B.A.: New Trends In Surgical Treatment Of Thoracolumbar Spine Fractures. Symposium In Recent
Advances In Surgical Trauma. King Fahd Military Medical Complex, Dhahran, Kingdom Of Saudi Arabia,
October 21, 1998.

Akbarnia, B.A.: Surgical Treatment Of Progressive Early Onset Scoliosis. Seminar On Anterior And Pediatric
Deformity Solutions, San Francisco, California, November 1, 1998.

Akbarnia, B.A.: Instrumentation Without Fusion For The Treatment Of Early Onset Scoliosis. Isola Study
Group, San Diego, California, November 20, 1998.

Akbarnia, B.A.: Interbody Fusion, Principles And Technique. Isola Study Group, San Diego California,
November 21, 1998.

Akbarnia, B.A.: Early Onset Scoliosis: Options Today. Big Time Spine At Lax, Los Angeles, California,
January 9, 1999.

Akbarnia, B.A.: Treatment Of Structural Kyphosis. Big Time Spine At Lax, Los Angeles, California, January
9, 1999.

Akbarnia, B.A.: Femoral Ring Allografts: Comparison To Manufactured Cages. Big Time Spine At Lax, Los
Angeles, California, January 9, 1999.

Akbarnia, B.A.: Pediatric Isola/Isola System. Ski With The Spine Center At Whistler, British Columbia,
Canada, January 17, 1999.

Akbarnia, B.A.: Idiopathic Scoliosis: Literature Review And Surgical Options. Ski With The Spine Center
Symposium At Whistler, British Columbia, Canada, January 17, 1999.

Akbarnia, B.A.: The Role Of Decompression In Spinal Fractures. International Spine Symposium, Nasser
Spine Institute (Via Link), Cairo, Egypt, January 26, 1999.

Akbarnia, B.A.: Back Pain In Children And Adolescents. Instructional Course Lecture, American Academy Of
Orthopaedic Surgeons, Anaheim California, February 4, 1999.

Akbarnia, B.A.: Infantile, Juvenile And Adolescent Idiopathic Scoliosis. Depuy Acromed International
Meeting, Cleveland, Ohio, February 9, 1999.

Akbarnia, B.A.: The Role Of Decompression In Spinal Trauma. Depuy Acromed

International Meeting, Cleveland, Ohio, February 9, 1999.

Akbarnia, B.A.: Surgical Correction Of Early Onset Scoliosis. San Diego Spinal Conference, San Diego, California, February 13, 1999.

Akbarnia, B.A.: Treatment Of Scoliosis In Adults. San Diego Spinal Conference, San Diego, California, February 13, 1999.

Akbarnia, B.A.: Instrumentation With Limited Fusion For Progressive Early Onset Scoliosis, 6th European Isola Meeting, Stockholm, Sweden, February 26-27, 1999.

Akbarnia, B.A.: Surgical Treatment Of Early Onset Scoliosis. Ski With Big Time Spine, Snowbird, Utah, March 6, 1999.

Akbarnia, B.A.: Role Of Decompression In Spinal Fractures. Ski With Big Time Spine, Snowbird, Utah, March 6, 1999.

Akbarnia, B.A.: Benign Tumors Of The Spine. Ski With Big Time Spine, Snowbird, Utah, March 6, 1999.

Akbarnia, B.A.: Treatment Of Early Onset Scoliosis. Al-Jazerah Hospital, Abu Dhabi, United Arab Emirates, June 2, 1999.

Akbarnia, B.A.: Combined Anterior And Posterior Surgery For Lumbar Spine. 5th International Congress On Spine Surgery, Istanbul, Turkey, June 23, 1999.

Akbarnia, B.A.: Outcome Analysis In Adolescent Idiopathic Scoliosis Surgery. Istanbul, Turkey, June 24, 1999.

Akbarnia, B.A.: Isola Instrumentation. 5th International Congress On Spine Surgery, Istanbul, Turkey, June 24, 1999.

Akbarnia, B.A.: Pediatric Applications Of Isola Instrumentation, Isola Instrumentation, Principles And Practice. University Of Kansas, Kansas City, Kansas, August 21, 1999.

Akbarnia, B.A.: Role Of Decompression In Spinal Trauma. University Of Kansas, Kansas City, Kansas. August 21, 1999.

Akbarnia, B.A.: Complication Of Interbody Fusion, Complications In Management Of Spinal Disorders: How To Avoid And How To Improve The Outcome. Scoliosis Research Society Cme Course, San Diego, California. September 22, 1999.

Akbarnia, B.A.: Lectures At The 7th International Isola Spinal Instrumentation Workshop. Kansas City, Missouri, October 17-19, 1999:

- Myelodysplasia Spine Deformity

- Early Onset Scoliosis

- Complications Of Interbody Fusion

- Pediatric Spine Trauma

- Role Of Posterior Decompression In Spinal Trauma

Akbarnia, B.A.: Early-Onset Scoliosis. AOA Traveling Fellowship Visit, Scripps Clinic, La Jolla, California, October 25, 1999.

Akbarnia, B.A.: Progressive Early-Onset Scoliosis. St. Louis University, St. Louis, Missouri, October 27, 1999.

Akbarnia, B.A.: Interbody Fusion Bone Or Cage? St. Louis Orthopaedic Society Meeting, St. Louis, Missouri, October 27, 1999.

Akbarnia, B.A.: Lectures At Annual Meeting Of Iranian Orthopaedic Association, Tehran, Iran, November 3-6, 1999:

- Back Pain In Children

- Pediatric Spine Fractures

- Treatment Of Early Onset Scoliosis

- Treatment Outcomes Of Idiopathic Scoliosis

Akbarnia B.A.: Lectures At Big Time Spine At Ocean Reef. Ocean Reef, Florida, November 17-20, 1999:

Treatment Of Early Onset Scoliosis
Complications Of Interbody Fusion
Treatment Of Adult Scoliosis

Akbarnia, B.A.: Instrumentation With Limited Fusion (Update). 10th Isola Study Group. San Francisco, California, January 21, 2000.

Akbarnia, B.A.: Early Onset Scoliosis. Big Time Spine. Keystone, Colorado, January 31, 2000.
Early Onset Scoliosis
Update On Allograft Interbody Fusion
Spinal Deformity In Myelodysplasia

Akbarnia, B.A.: Lumbar Interbody Fusion: Bone Versus Cage. University Of Missouri, Columbia, Missouri, February 21, 2000.

Akbarnia, B.A.: 7th European Isola Meeting, Antwerp, Belgium, February 25-26, 2000.
Complications Of Lumbar Interbody Arthrodesis With Implants
Kyphosis In Myelodysplasia

Akbarnia, B.A.: The Spine Surgeon's Perspective, Guest Lecturer, 11th Annual Meeting Of The American Society Of Neurophysiologic Monitoring, San Diego, California, May 5, 2000.

Akbarnia, B.A.: Lectures At Big Time Spine, Geneva Switzerland, May 18-19, 2000.
Paediatric Fractures
Instrumentation Without Fusion In The Young
Approaches To Myelodysplasia
Interbody Fusion... Bone Or Cage?

Akbarnia, B.A.: Lectures At Big Time Spine, San Francisco, California, June 10, 2000.
Scoliosis Surgery In The Young
Lumbar Interbody Fusion With Allograft
Posterolateral Decompression For Spinal Fractures

Akbarnia, B.A.: Lectures At The 7th International Meeting On Advanced Spine Techniques (Imast), Barcelona, Spain, July 6-8, 2000.

Advances In Posterior Instrumentation Strategies For
Deformity Correction In Growing Children
Surgical Treatment Of Progressive Early-Onset
Scoliosis.



Our administrative team keeps us all focused.

Poster Exhibits

Akbarnia, B.A., Marks, D., Perez-Grueso, F., McCarthy, R., Thompson, A.G., Boachie-Adjei, O., And Raiszadeh, K.: Instrumentation With Limited Fusion For The Treatment Of Progressive Early Onset Scoliosis. 32nd Annual Meeting Of The Scoliosis Research Society, San Diego, September 23-25, 1999.

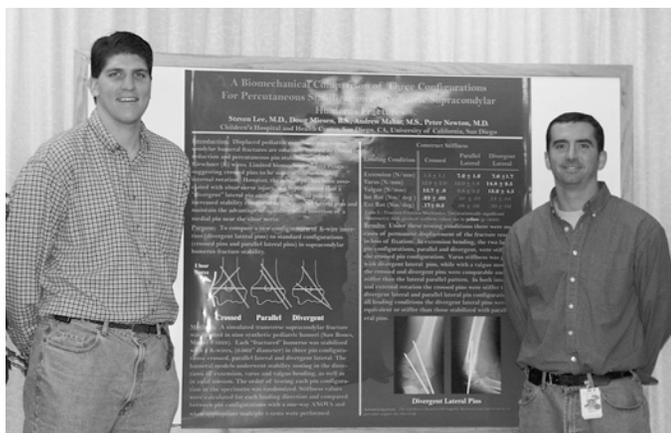
Walking Velocity and Functional Ambulation Level as Predictors of Rectus Femoris Transfer Outcomes (Michelle Marks, E Quigley, M Wyatt, and H Chambers) Gait and Clinical Movement Analysis Society Rochester, Minnesota April 2000

Wrist Fusion in Cerebral Palsy Pediatric Orthopedic Society of North America Vancouver, British Columbia May 2000

Betz, R.R., Lenke, L.G., Clements, D.H., Lowe, T.G., Newton, P.O.: Anterior Instrumentation for Thoracic Adolescent Idiopathic Scoliosis: Open and Minimally Invasive Techniques. 67th Annual Meeting of the American Academy of Orthopedic Surgeons, Orlando, FL, March 15, 2000.

Newton, P.O., Hahn, G.W., Wenger, D.W.: The Utility of Curved Multiplanar Reformatted and 3-Dimensional Computed Tomography in the Evaluation of Pediatric Congenital Spinal Abnormalities. Annual Meeting of the Pediatric Orthopedic Society of North America, Vancouver, BC, May 1-4, 2000.

Newton, P.O., Wenger, D.R.: The Use Of "Reduction Screws" In Open And Thoracoscopic Correction Of Scoliosis. 35th Annual Meeting of the Scoliosis Research Society, Cairns, Australia, October 18-21, 2000.



The UCSD resident research rotation year now includes our Biomechanics Laboratory as a widely sought after position.

Newton, P.O., Hahn, G.V., Wenger, D.R.: The Utility Of Curved Multiplanar Reformatted And 3-Dimensional Computed Tomography In The Evaluation Of Pediatric Congenital Spinal Abnormalities. 35th Annual Meeting of the Scoliosis Research Society, Cairns, Australia, October 18-21, 2000.

Newton, P.O., Mahar, A. T., Lee, S.S., Farnsworth, C.L.: Asymmetrical Flexible Tethering Of Spinal Growth in an Immature Bovine Model. 35th Annual Meeting of the Scoliosis Research Society, Cairns, Australia, October 18-21, 2000.

Clements, D.H., Newton, P.O., Haher, T., Merola, A., Wenger, D.W.: Proximal Screw Pull-out During Anterior Instrumentation for Thoracic Scoliosis: Preventive Techniques. 35th Annual Meeting of the Scoliosis Research Society, Cairns, Australia, October 18-21, 2000.

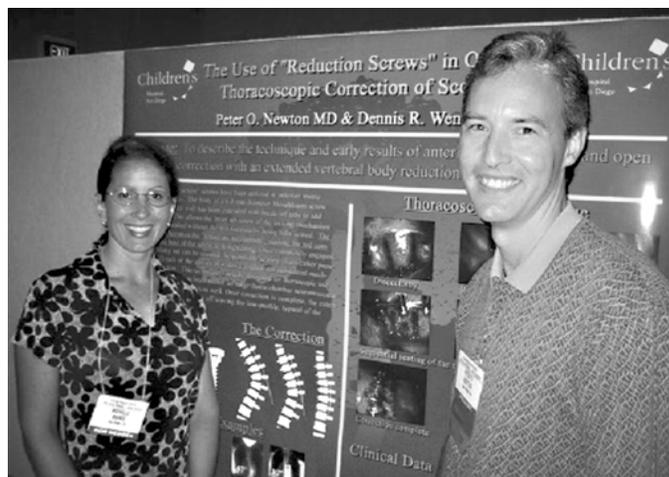
Betz, R.R., Lenke, L.G., Lowe, T.G., Harms, J.,

Betz, R.R., Lenke, L.G., Clements, D.H., Newton, P.O.: Thoracoscopic versus Open Thoracotomy Correction by Anterior Instrumentation for the Treatment of Thoracic Adolescent Idiopathic Scoliosis. 35th Annual Meeting of the Scoliosis Research Society, Cairns, Australia, October 18-21, 2000.

Lenke, L.G., Betz, R.R., Clements, D.H., Newton, P.O., Merola, A., Lowe, T.G., Wenger, D., Crawford, A.: Interobserver and Intraobserver Reliability of Choosing the Stable Vertebra: Comparing the Traditional versus a New Method. 35th Annual Meeting of the Scoliosis Research Society, Cairns, Australia, October 18-21, 2000.

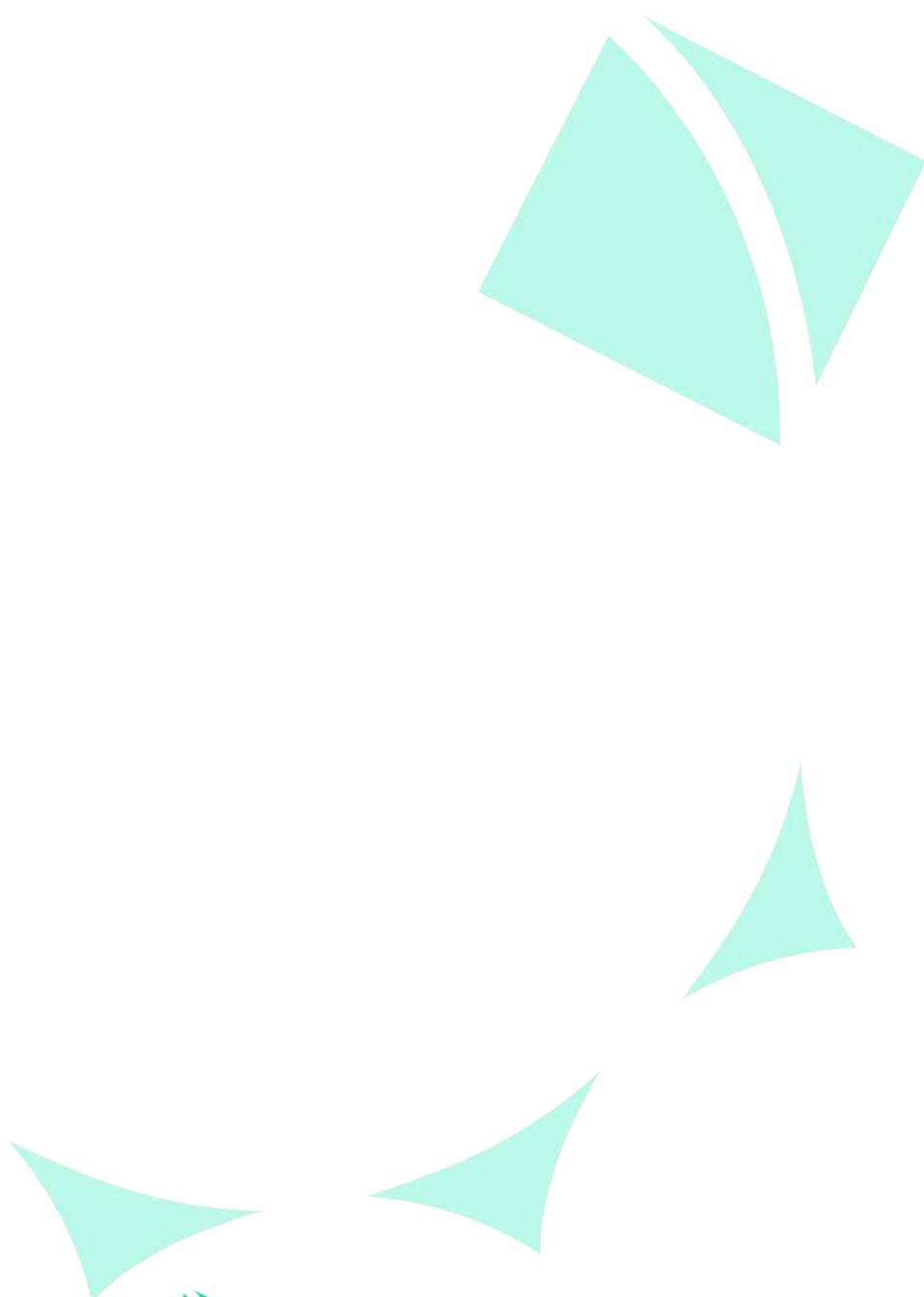
Marks, M., Smith, T., Newton, P.O.: Comparison of Two Outcomes Instruments in the Evaluation of Adolescent Idiopathic Scoliosis. 35th Annual Meeting of the Scoliosis Research Society, Cairns, Australia, October 18-21, 2000.

Sink, E., Newton, P.O., Wenger, D.W., Mubarak, S.J.: Proximal and Distal Sagittal Plane Failures of Luque-Galveston Instrumentation in Neuromuscular Scoliosis. 35th Annual Meeting of the Scoliosis Research Society, Cairns, Australia, October 18-21, 2000.



Our poster exhibits appear at scientific conferences around the world (Above - 2000 Scoliosis Research Society Meeting - Cairns, Australia)





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