Childhood Obesity and Musculoskeletal Problems

Editorial Comment

Eric W. Edmonds MD, Kimberly J. Templeton MD

Published online: 26 January 2013

© The Association of Bone and Joint Surgeons® 2013

More often than not, a symposium published in *Clinical Orthopaedics and Related Research*® begins with a manuscript of historical interest. The historical manuscript should influence our understanding of the symposium topic even to this day; it is reprinted alongside the new research in the symposium to announce the spirit of the ensuing publications. Sadly, there is no worthy publication of historical interest for this symposium.

The problem is not the absence of an earlier landmark publication in this field; rather, what is saddening is the very need to produce a symposium on the topic of childhood obesity and musculoskeletal problems. According to the Centers for Disease Control and Prevention (CDC), the rate of childhood obesity has tripled since the previous generation [1]. An astonishing 17% of children and adolescents younger than 19 years now are obese.

The impact of obesity on other childhood conditions such as diabetes and cardiovascular health has been well documented; by contrast, the effects of obesity on the developing musculoskeletal system are less well understood. With increasing rates of obesity come new trends in

Fig. 1 Dr. Eric W. Edmonds is shown.

All ICMJE Conflict of Interest Forms for authors and *Clinical Orthopaedics and Related Research* editors and board members are on file with the publication and can be viewed on request.

E. W. Edmonds (✉)
Pediatric Orthopedic and Scoliosis Center,
Rady Childrens Hospital San Diego, 3030 Childrens Way,
Suite 410, San Diego, CA 92123, USA
e-mail: EWedmonds@rchsd.org; ericwedmonds@yahoo.com;
eedmonds@ucsd.edu

K. J. Templeton
Departments of Orthopaedic Surgery and Health Policy
and Management, University of Kansas Medical Center,
Kansas City, KS, USA

musculoskeletal pathology, and children are not exempt from this phenomenon. Focusing on obesity during childhood is critical not only in terms of the short-term ramifications as discussed in this symposium but also because of the effects of obesity on the development of musculoskeletal disease as these patients age.

This symposium is the result of an ongoing relationship between the Pediatric Orthopedic Society of North America and the US Bone and Joint Initiative to raise awareness of this growing problem and highlights our current understanding, as well as the deficits in our knowledge. During the annual Global Bone and Joint meeting in 2009, hosted by the US Bone and Joint Decade (now Initiative), the pediatric working group identified childhood obesity as their primary area of international concern.

Fig. 2 Dr. Kimberly J. Templeton is shown.

We wanted this symposium to include contributions from many specialties, reflecting both the far-reaching nature of this problem and the composition of the US Bone and Joint Initiative. The end result is a broad spectrum of topics related to musculoskeletal conditions and childhood obesity. The publications within this symposium are intended to give the reader an insight into the extent of pathology related to obesity and to highlight the need for additional research and education on this serious public health issue.

The symposium begins with a concise review of current knowledge within the medical literature of childhood

obesity as it relates to orthopaedics, setting the stage for the idea of “where do we go from here?” The remainder of the symposium is designed to inspire future projects by helping readers gain a better understanding of the issues.

While reading through the symposium, you will find that the potential short- and long-term ramifications of this problem are extensive. You will read about new concepts regarding obesity and fracture etiology, healing, and management. Then, you will dive into some basic science research demonstrating the underlying issues with obesity, followed by a social experiment intended to teach our youth about taking care of themselves. The symposium wraps up with a few additional studies looking at spine surgery, psychologic aspects of obesity, and wound healing in the obese child.

We hope this symposium presents a clear case for why the issue is important and how the societal problem of obesity affects musculoskeletal health. While we are making progress in our understanding of the issues, we hope this work encourages you to take up research topics in these areas, or at least to stay abreast of the work being done in this important field. Our sincere desire is never to need another symposium related to childhood obesity, and we hope that these publications will someday serve as historical reprints in a future symposium of solved, antiquated human health issues.

Reference

1. Centers for Disease Control and Prevention. Overweight and obesity. Available at: <http://www.cdc.gov/obesity/data/facts.html>. Accessed January 2, 2013.