

The Internet for Orthopaedists

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THE
INTERNET
FOR
ORTHOPAEDISTS

With 56 Illustrations

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Series Preface

The Internet is the ultimate amalgamation of the Information Age and the Communication Age. It is a technology that took 40 years to become an overnight sensation, moving from the province of computer geeks to household utility in short order, once it was discovered. We have gone from thinking a URL was a form of alien presence to viewing it as a natural footnote to bus advertising.

Like the Internet itself, interest in computing, both local and distant, has grown exponentially. Now grandmothers send e-mails to their stockbrokers, meals are planned and the groceries purchased across the Web, and music videos can be previewed or concert tickets purchased—all with the help of the Internet. When our children come home from school, they are as likely to sign on to the Internet as they are to turn on the television. The Internet is a universal commodity, for those with access.

The American Internet User Survey found that more than 41.5 million adults in the United States actively are using the Internet. Of these Web users, 51% use the Web on a daily basis. It seems everybody needs to be connected to the Web, just as they all seem to need to make cell-phone calls while changing lanes in heavy traffic. The Internet is nothing less than a library card to the world. At the most basic level, the Internet is a high-speed web of worldwide computer-based information resources. It is a network of computer networks. One moment you can be browsing through the Library of Congress or looking at pictures from the National Library of Medicine, and the next moment conversing with a colleague in Indonesia.

What about the Internet and medicine? Well, we, physicians, sell information. That is what we do in medicine. That is what we always have done. Today, the difference is that we do it in an age built on information. Information, medical and otherwise, is all around us. From pocket pagers that deliver stock quotes and sports scores to palm-top digital assistance that wirelessly connects to the Internet, information is achieving the status of Oxygen[†]—it is all around us and invisible. Today, informa-

[†]Oxygen also is the name of a computing project at the Massachusetts Institute of Technology that is aimed at achieving this goal.

tion is managed, moved, and organized in ways never thought of in the past and will soon be managed in ways not yet conceived. In medicine, information is vital, but the exponential growth of knowledge available requires new approaches to its dissemination, access, and use. Central to this is the Internet. Information is now the province of anyone with a computer. This has led to “disintermediation”: the ability of consumers to go directly to the source of information (or goods and services), bypassing the intermediate steps of providers. In medicine, this means that physicians obtain and distribute information in new ways, patients obtain and receive their information in new ways, and, together, patients and providers interact in new ways. Very little has remained the same, yet, fundamentally, nothing is different—we still sell information. Medicine has frequently led the way with new technology: We used print materials when books were in their infancy; we embraced the telephone like few other professions; pagers, two-way radio, and teleconferencing (telemedicine) were all adopted by medicine early in their development. The need for information always has driven this adoption, and it is no different for the Internet.

This series of texts on the Internet in medicine and in medical subspecialty areas hopes to assist in this natural evolution in two ways. First, it will help us understand the abilities of the Internet and know its tools so that we may capitalize on what the Internet holds for ourselves as physicians and our patients. Second, the medical applications of the Internet have grown too rapidly and are too specialty-specific to explore in depth in any single volume. Hence, the birth of specialty-specific volumes. When the first edition of *The Internet for Physicians* was published, it was mainly the technophile fringe that was surfing. The first edition attempted to introduce the concept of information transfer and communication and point the way toward a tool of the future. The second edition attempted to assuage trepidation in the use of this emerging tool and suggest the why and wherefore of being connected. The needs that drove those goals almost have completely disappeared. The third edition is more focused on the medical aspects of the Internet and its use, and much less on the nuts and bolts of connecting and communicating through the Web. This evolution has opened the possibility of a series dedicated to the Internet in various specialties of medicine. Each of these volumes deals with specialty-specific aspects of the Internet, going beyond the general scope of *The Internet for Physicians*. Each author has been chosen for his or her expertise in medical computing, and they are each a recognized leader in their field. Each volume builds on fundamentals introduced in *The Internet for Physicians*. While each volume stands alone, they have all been

created so that each fits within the same concept. As authors, we hope that this series will open new and exciting options for this new age of medical information. Surf's up!

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Preface

A book about using the Orthopaedic Internet has two potential groups of readers: those who already use the Internet for orthopaedic information and those who don't but are considering it. Although there is some overlap between the needs of these two groups, it would be difficult to satisfy everyone and there is a danger of being too superficial for one group and too detailed for the other. We have tried to use the inherent difference between the two groups to solve this problem. For the group that is not familiar with the Internet and computerized information technology (IT), the printed text is an introduction to the Internet with leads to the immense resources on the Net itself. For this group the CD-ROM has a list of links to the resources discussed in the text. We have also prepared a Web site with basic workshops and tutorials on finding orthopaedic information and straightforward ways to improve use of the basic IT programs. For experienced readers, we believe that the book alone will not be enough and that they will want to interact with the material and look up the Internet resources referred to as they go. For this group we have posted a hypertext version so they can read and surf (<http://condor.sechrest.com/clough/book/default.htm>). The intended result is that the book is an overview dealing with the subjects to a certain level of sophistication. For more detail and for activities that involve connection to the Internet we recommend using the Web site. Since one of the main messages of this book is that IT provides a richer, deeper, and more personalized learning experience than text alone, it would be hypocrisy not to attempt to demonstrate that.

Many of the terms used in this book are unfamiliar or have unfamiliar meanings. There is an extensive glossary where the terms are further defined. Another difficult issue is acronyms. We cannot avoid using them. The term is written out in full when encountered for the first time in each chapter with the acronym in parentheses. All IT acronyms are glossary terms. You are on your own with orthopaedic ones although we do link to the Orthopaedic Acronym Finder on the CD-ROM.

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