The physical properties of ultrasound, particularly its highly directional beam behaviour, and its complex interactions with human tissues, have led to its becoming a vitally important tool in both investigative and interventional medicine, and one that still has much exciting potential.

This new edition of a well-received book treats the phenomenon of ultrasound in the context of medical and biological applications, systematically discussing fundamental physical principles and concepts. Rather than focusing on earlier treatments, based largely on the simplifications of geometrical acoustics, this book examines concepts of wave acoustics, introducing them in the very first chapter.

Practical implications of these concepts are explored, first the generation and nature of acoustic fields, and then their formal descriptions and measurement. Real tissues attenuate and scatter ultrasound in ways that have interesting relationships to their physical chemistry, and the book includes coverage of these topics.

Physical Principles of Medical Ultrasonics also includes critical accounts and discussions of the wide variety of diagnostic and investigative applications of ultrasound that are now becoming available in medicine and biology. The book also encompasses the biophysics of ultrasound, its practical applications to therapeutic and surgical objectives, and its implications in questions of hazards to both patient and operator.
ABOUT THE AUTHOR

C. R. Hill is the editor of *Physical Principles of Medical Ultrasonics, 2nd Edition*, published by Wiley.

J. C. Bamber is the editor of *Physical Principles of Medical Ultrasonics, 2nd Edition*, published by Wiley.

G. R. ter Haar is the editor of *Physical Principles of Medical Ultrasonics, 2nd Edition*, published by Wiley.

For additional product details, please visit https://www.wiley.com/en-us