Medical Statistics has never been easier!

David E. Matthews
Vernon T. Farewell

Using and Understanding Medical Statistics
5th, revised and extended edition

The fifth revised edition of this highly successful book presents the most extensive enhancement since Using and Understanding Medical Statistics was first published 30 years ago. Without question, the single greatest change has been the inclusion of source code, together with selected output, for the award-winning, open-source, statistical package known as R. This innovation has enabled the authors to de-emphasize formulae and calculations, and let software do all of the 'heavy lifting'.

This edition also introduces readers to several graphical statistical tools, such as Q-Q plots to check normality, residual plots for multiple regression models, funnel plots to detect publication bias in a meta-analysis and Bland-Altman plots for assessing agreement in clinical measurements. New examples that better serve the expository goals have been added to a half-dozen chapters. In addition, there are new sections describing exact confidence bands for the Kaplan-Meier estimator, as well as negative binomial and zero-inflated Poisson regression models for over-dispersed count data.

The end result is not only an excellent introduction to medical statistics, but also an invaluable reference for every discerning reader of medical research literature.

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Cover illustration
The figure depicts a characteristic association of an arteriole and a myelinated nerve in the tooth pulp of a human molar visualized by immunohistological double staining of a ground section for S-100 (Schwann cells) and CD34 (arteriolar endothelium) (from Steiniger et al., Cells Tissues Organs 2013;198:57–65).