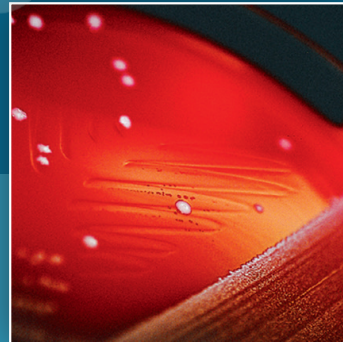




Enhanced  
**DIGITAL  
VERSION**  
Included

# MOSBY'S® DICTIONARY of Medicine, Nursing & Health Professions



Fourth Australian and New Zealand Edition

Peter Harris • Louise Purtell • Nicholas Vardaxis



ELSEVIER

# MOSBY'S DICTIONARY

of Medicine, Nursing  
& Health Professions

Australia@elsevier

# MOSBY'S DICTIONARY

## of Medicine, Nursing & Health Professions

Fourth Australian and New Zealand Edition

Editors-in-Chief

**Peter Harris**

MBBS, FRACGP; Honorary Senior Lecturer in Medical Education  
University of New South Wales, Sydney,  
NSW, Australia

**Nicholas Vardaxis**

BSc(Hons), PhD; Accreditation Assessor at Australian Health  
Practitioner Regulation Agency and  
Higher Education Consultant, Australia

**Louise Purtell**

BMedSci(Hons), PhD; Senior Research Fellow, Metro North Health,  
Queensland; Adjunct Research Fellow, Griffith University, Australia



Elsevier Australia. ACN 001 002 357  
(a division of Reed International Books Australia Pty Ltd) Tower 1, 475 Victoria Avenue,  
Chatswood, NSW 2067

**Copyright © 2024 Elsevier Australia. All rights are reserved, including those for text and data mining, AI training, and similar technologies.**

1st edition © 2006 2nd edition © 2010; 3rd edition © 2014 Elsevier Australia © 2024; 4th edition

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any information storage and retrieval system, without permission in writing from the publisher. Details on how to seek permission, further information about the Publisher's permissions policies and our arrangements with organizations such as the Copyright Clearance Center and the Copyright Licensing Agency, can be found at our website: [www.elsevier.com/permissions](http://www.elsevier.com/permissions).

This book and the individual contributions contained in it are protected under copyright by the Publisher (other than as may be noted herein).

**International Standard Book Number: 978-0-7295-4459-7**

**Notice**

Practitioners and researchers must always rely on their own experience and knowledge in evaluating and using any information, methods, compounds or experiments described herein. Because of rapid advances in the medical sciences, in particular, independent verification of diagnoses and drug dosages should be made. To the fullest extent of the law, no responsibility is assumed by Elsevier, authors, editors or contributors for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions, or ideas contained in the material herein.

**Cataloging-in-Publication Data-**



A catalogue record for this  
book is available from the  
National Library of Australia

*Content Strategist:* Natalie Hunt  
*Content Project Manager:* Shivani Pal

Typeset by

Printed in



Working together  
to grow libraries in  
developing countries

[www.elsevier.com](http://www.elsevier.com) • [www.bookaid.org](http://www.bookaid.org)

# Contents

**Preface** vi

**Specialist Consultants** vii

**Appendix Consultants** ix

**Consultants** x

**Editorial Board Members** xi

**Guide to the Dictionary** xii

**Pronunciation Key** xv

**Colour Atlas of Human Anatomy A-1**

    Skeletal system A-2

    Muscular system A-8

    Circulatory system A-12

    Endocrine system A-19

    Lymphatic system A-21

    Nervous system A-24

    Respiratory system A-29

    Digestive system A-33

    Reproductive system A-36

    Urinary system A-40

    Special senses A-43

**Dictionary entries A—Z 1—1864**

**Appendices**

    1 Units of measurement 1867

    2 Symbols and abbreviations 1878

    3 Medical terminology 1888

    4 Normal reference values 1907

    5 Nutrition 1923

    6 Medication: clinical calculations, interactions, issues of safety, and usage rates 1945

    7 Infection control 1981

    8 Health of Aboriginal, Torres Strait Islander and Māori people 1993

    9 Tabular atlas of human anatomy and physiology 1999

**Picture credits** 2032

# Mosby Dictionary Preface - 2024

*“It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair.”*

— Charles Dickens, *A Tale of Two Cities*

We live in a rapidly changing world where every day we are confronted with challenges to our comfort zone: An amazing proliferation of technological breakthroughs, an ever-expanding complication of common processes in our lives, a rearrangement of our environment and the way we perform our tasks, our work, our leisure, our interactions with other people. As if that were not enough, the past three years have made us painfully aware of the biological stressors that can shake the very foundations of our society on a global level. The emergence of COVID-19 and the ensuing pandemic have changed our world in a way that few of us could have predicted with accuracy prior to the events that we have lived through.

All this may seem to be unrelated to the matter at hand: A preface to a new edition of the Australian and New Zealand edition of *Mosby's Dictionary of Medicine, Nursing and Health Professions*. It is apt, however, as every new edition of a book exemplifies change and a response to change. Sciences like medicine, nursing and health professions are amongst the most rapidly evolving in the clinical, academic and technological spheres. We have worked to continue to update, delete and include items and so produce a dictionary with the same degree of reliability, trustworthiness and definitive authority that marked the previous editions of this work. The encyclopaedic nature of the work has been retained in this new edition.

The way we have prepared the dictionary has changed with all of our editing and writing done the aid of new online authoring technology.

We have some sad news to convey also, as last year Ms Jenny Curtis passed away. Jenny worked closely with us on the previous editions of the Dictionary and was a great support, diligent, conscientious and knowledgeable with a good sense of humour. It was a privilege to work with her. She made our life easier with her great skills, excellent suggestions, and her ever-watchful eye. This edition continues to carry the hallmarks of our late colleague Dr Sue Nagy who was an editor-in-chief for the first two editions and greatly influenced this work. Dr Louise Purtell has ably filled her position and brought a fresh perspective to our editorial task.

We have experienced a great upheaval during these times of the COVID-19 pandemic and acknowledge the strength, perseverance and care of the medical, nursing, and other health professionals, the courage of the first responders, and the selflessness of the volunteers, who have all made surviving in the time of the pandemic possible. Yes, it was the worst of times, but it was also the best of times...

**Peter Harris**  
**Nicholas Vardaxis**  
**Louise Purtell**

Readers familiar with Bacon's words 'Ipsa scientia potestas est' (Knowledge itself is power) will appreciate this dictionary for what it contains but they should nevertheless be reminded of Pliny the Younger's warning: 'Difficile est tenere quae acceperis nisi exerceas' (It is difficult to retain what you may have learned unless you should practise it).





# Specialist Consultants

## Australia & New Zealand

**Professor, Paul V. Abbott** BSc, MDS, FRACDS(Endo)  
Winthrop Professor of Clinical Dentistry, School of Dentistry  
The University of Western Australia, WA, Australia

**Nadia Badawi** MBCh, MSc, PhD, FRACP, FRCPI  
Medical Director, Grace Centre for Newborn Care  
The Children's Hospital at Westmead  
Macquarie Group Foundation Professor of Cerebral Palsy  
Cerebral Palsy Institute University of Notre Dame, Cerebral Palsy Alliance  
Department of Paediatrics and Child Health, University of Sydney, NSW, Australia

**Michael Barton** OAM, MBBS, MD, FRANZCR  
Professor of Radiation Oncology  
Director, Ingham Institute for Applied Medical Research (IIAMR)  
University of NSW, NSW, Australia

**Michael Bauer** PhD  
Senior Research Fellow, Australian Institute for Primary Care and Ageing (AIPCA)  
La Trobe University, Vic, Australia

**Ingrid Belan** BSc, PhD  
Senior Lecturer, School of Nursing & Midwifery  
Flinders University, SA, Australia

**Ann Bonner** PhD, MA, BAppSc(Nurs), Renal Cert, RN, MACN  
Professor of Nursing  
Head of School, School of Nursing and Midwifery  
Griffith University, Qld Australia

**Rob Boughton** MBBS, BSc(Med), FANZCA  
Senior Specialist Anaesthetist  
Royal Prince Alfred Hospital, Sydney, NSW, Australia

**Lesley A. Braun** PhD, BPharm, DipAppSci(Naturopathy), GradDip(Phytotherapy)  
Associate Professor of Integrative Medicine, National Institute of Complementary Medicine  
Australian Therapeutic Goods Advisory Council, Monash University  
Senior Research Fellow & Clinical Supervisor, Alfred Hospital, Melbourne, Vic, Australia

**Antonio Celenza** MBBS, MCLinEd, FACEM, FCEM  
Winthrop Professor of Medical Education and Emergency Medicine  
The University of Western Australia, WA, Australia

**Peter Collignon** AM, MBBS(Hons), BSc(Med), FRACP, FRCPA, FASM  
Infectious Diseases Physician and Microbiologist  
Director Infectious Diseases Unit and Microbiology Department, The Canberra Hospital  
Professor, Canberra Clinical School, Australian National University, ACT, Australia

**Ruth Crowther** BSc, MPhil, PhD, GradCert HigherEd  
Senior Lecturer  
School of Population Health, University of Queensland, Qld, Australia

**Allison Cummins** RM, MEdu  
Coordinator of Graduate Diploma in Midwifery  
University of Technology, Sydney, NSW, Australia

**Patricia M Davidson** RN, PhD  
Professor of Cardiovascular and Chronic Care  
University of Technology Sydney  
Professor of Cardiovascular Nursing Research  
St Vincent's Hospital, Sydney, NSW, Australia

**Katrine Del Villar**  
School of Law, QUT  
Australian Centre for Health Law Research

**Astrid Frotjold** RN, BA, MNS  
Acute Care Lecturer  
Sydney Nursing School, the University of Sydney, NSW, Australia

**Casey Haining**  
Australian Centre for Health Law Research, Queensland University of Technology  
Melbourne School of Population and Global Health, University of Melbourne

**Janelle Gifford** PhD, MSc, BSc, BBus, AdvAPD/Advanced Sports Dietitian  
Director, Core Nutrition, NSW  
Lecturer, Faculty of Health Sciences  
University of Sydney, NSW, Australia

**Peter Harris** MBBS, FRACGP  
Honorary Senior Lecturer in Medical Education  
University of New South Wales, Sydney, NSW, Australia

**Kirsten Hepburn**  
Kidney Health Service, Metro North Health, Queensland Health

**Andrew G. Hill** MBChB, MD, EdD, FRACS, FACS  
Professor of Surgery  
Head of the South Auckland Clinical Campus, University of Auckland  
Middlemore Hospital, Auckland, New Zealand

**Jacqui Hislop-Jambrich**  
DipAppSci(MedRad), Med, PhD  
Clinical and Applications Scientist  
Toshiba Medical, NSW, Australia

**Jacquie Kidd** (Nga Puhi) BN, MN, PhD, FNZCN  
Senior Lecturer  
University of Auckland, New Zealand

**Michael Legge** BSc, MBS, FFSoc (RCPA), FIBMS, FNZIMLS, PhD  
Associate Professor  
Director Medical Laboratory Science  
Associate Dean Medical Education (OSMS)  
Departments of Biochemistry and Pathology  
University of Otago, New Zealand



## Specialist Consultants

viii

**Mark D. Levin** MBBS, FRACP, FRCPA  
Clinical and Laboratory Haematologist  
Head of Haematology  
Dorevitch Pathology, Vic, Australia

**Elizabeth A. McCusker** MBBS (Hons),  
FRACP  
Senior Staff Specialist Neurology,  
Westmead Hospital  
Clinical Associate Professor  
University of Sydney, NSW, Australia

**Nina Meloncelli**  
Office of the Chief Allied Health  
Practitioner, Metro North Health,  
Queensland Health  
Centre for Health Service Research,  
Faculty of Medicine, The University  
of Queensland

**Alison Mudge**  
Professor  
Royal Brisbane and Women's Hospital  
The University of Queensland Medical  
School

**Sue Nagy** RN, BA(Hons), PhD, FCN  
Adjunct Professor, Faculty of Health  
University of Technology, Sydney,  
NSW, Australia

**Amanda Oakley** MBChB, FRACP,  
PGDipHealInf, CNZM  
Adjunct Professor of Medicine  
University of Auckland  
Head of Department, Te Whatu Ora  
Waikato  
Dermatology, Hamilton, New Zealand

**Malcolm Parker** MBBS, MLitt,  
MHealth & Med Law, MD  
Professor of Medical Ethics, School of  
Medicine  
University of Queensland, Qld, Australia

**Pat Phillips** MBBS, MA(Oxon),  
FRACP  
Consultant Endocrinologist  
The QE Specialist Centre  
Woodville, SA, Australia

**Stephen Riordan** MBBS, MD,  
FRACP, FRCP(Lond)  
Senior Staff Specialist, Prince of Wales  
Hospital  
Professor of Medicine (Conjoint)  
University of New South Wales, NSW,  
Australia

**Rocco P. Pitto** MD, PhD, FRACS  
Associate Professor  
Orthopaedic Surgeon  
Middlemore Hospital, University  
of Auckland, Auckland,  
New Zealand

**Louis Roller** PhD, MSc, BSc, BPharm,  
PhC, DipEd, FPS, AM  
Honorary Associate Professor, Teaching  
Associate  
Faculty of Pharmacy and Pharmaceutical  
Sciences  
Monash University, Vic, Australia

**Magdalen Rozsa** BAppSc(Speech  
Pathology), GradDip(Clinical  
Education)  
Magdalen Rozsa Speech Pathology  
Services, Summer Hill, NSW,  
Australia

**Leslie Schrieber** MBBS(Hons), MD,  
FRACP  
Associate Professor in Medicine  
Northern Clinical School  
University of Sydney at Royal North  
Shore Hospital, Sydney, NSW,  
Australia

**William Sewell** MBBS, BSc, PhD,  
FRCPA  
Associate Professor, St Vincent's  
Clinical School, University of NSW  
Clinical Academic, St Vincent's  
Hospital Sydney, NSW, Australia

**Kaye Spence** AM, RN, MN  
Associate Professor/Clinical Nurse  
Consultant, Neonatology  
The Children's Hospital at Westmead,  
NSW, Australia  
School of Nursing and Midwifery,  
Queens University Belfast, Northern  
Ireland

**Vicki Stanton Credentialed** MHN,  
BA(SocWel), MA(SocSc),  
GradDipPubHlth, GradCertMgmt,  
FACMHN  
Clinical Coordinator Aboriginal Mental  
Health  
South Eastern Sydney Local Health  
District, NSW, Australia

**Paul Strube** PhD  
Senior Lecturer, Division of Health  
Sciences  
School of Pharmacy and Medical  
Sciences, University of South  
Australia, SA, Australia

**Ian Symonds** MBBS, MMedSci, DM,  
FRCOG, FRANZCOG  
Conjoint Professor of Obstetrics and  
Gynaecology  
Head, School of Medicine and Public  
Health  
Faculty of Health and Medicine  
University of Newcastle, NSW,  
Australia

**Mei-Ling Tay-Kearney** MBBS  
(WAust), FRACO, FRACS  
Associate Professor and Consultant  
Ophthalmologist  
Lions Eye Institute  
Perth, WA, Australia

**Paul S. Thomas** MD, MHPed, FRCP,  
FRACP  
Professor, Infection and Inflammation  
Research Centre  
Faculty of Medicine, University of NSW  
Prince of Wales Hospital Clinical  
School, Faculty of Medicine,  
University of NSW  
Respiratory Medicine, Prince of Wales  
Hospital, Sydney, NSW, Australia

**Gail Tomsic** RN, DipApplSci(Nurs),  
BAppSc(Nurs), MCommNurs,  
GradDip(Paed) GradDip(Nurs  
Mang), GradCert(Infant Feeding),  
MACN, MCCN  
Clinical Nurse Consultant  
The Children's Hospital at Westmead,  
NSW, Australia

**Rebecca Vanderheide** RN, FACN,  
BHealthSci(Nurs), MNurs,  
MBioethics, GCHEd, CTCert  
Lecturer  
Monash University, Melbourne, Vic,  
Australia

**Nicholas Vardaxis** BSc(Hons), PhD  
Accreditation Assessor at Australian  
Health Practitioner Regulation  
Agency and Higher Education  
Consultant, Australia

**Kylie Vuong**  
Associate Professor  
School of Medicine and Dentistry,  
Griffith University  
School of Population Health, UNSW,  
Australia

**Marie T. Williams** PhD  
Associate Professor  
University of South Australia, SA,  
Australia

# Appendix Consultants

## Australia & New Zealand

**Wendy Beckingham** RN,  
BHSc(Nursing), Grad Cert (Infection  
Control), MClinicalNurs, CICP,  
MRCN  
Clinical Nurse Consultant  
Infection Control  
Canberra Hospital, ACT, Australia

**Lesley Braun** PhD, BPharm,  
DipAppSci(Naturopathy),  
GradDip(Phytotherapy)  
Adjunct Senior Research Fellow,  
Monash/Alfred Psychiatric Research  
Centre, Research Pharmacist, Alfred  
Hospital, Vic, Australia

**Janelle Gifford** PhD, MSc, BSc, BBus,  
AdvAPD  
Director, Core Nutrition, NSW  
Lecturer, Faculty of Health Sciences  
University of Sydney, NSW, Australia

**Peter Harris** MBBS, FRACGP  
Senior Lecturer in Medical Education  
University of New South Wales, NSW,  
Australia

**Gabby Irvine** RN, CIC(NSW),  
BSc(Nsg)  
Infection Control Consultant  
Bug Control New Zealand Ltd, New  
Zealand

**Jacquie Kidd** (Nga Puhi), BN, MN,  
PhD, FNZCN  
Senior Lecturer  
University of Auckland, New Zealand

**Jan Liddell** RN, DipNsg, CAT, CATE  
Centre for Health and Social Practice  
Wintec (Waikato Institute of  
Technology), New Zealand

**Treasure McGuire** PhD, BPharm, BSc,  
PostGradDipClinHospPharm  
Assistant Director of Pharmacy, Practice  
and Development Mater Health  
Services, South Brisbane  
Conjoint Senior Lecturer, School of  
Pharmacy  
University of Queensland  
Associate Professor of Pharmacology,  
Faculty of Health Sciences and  
Medicine  
Bond University, Qld, Australia

**Yin Paradies** BSc, MMedStats, MPH,  
PhD  
Associate Professor  
Principal Research Fellow, Centre for  
Citizenship and Globalisation  
Faculty of Arts and Education  
Deakin University, Vic, Australia

**Hannah Reich**  
Research Assistant, McCaughey Centre  
School of Population Health  
University of Melbourne, Vic, Australia

**Louis Roller** PhD, MSc, BSc, BPharm,  
PhC, DipEd, FPS  
Associate Professor, Teaching Associate  
Faculty of Pharmacy and Pharmaceutical  
Sciences  
Monash University, Vic, Australia

**Joanne Williams** AssDip(MRA), Cert  
IV AWT  
Team Leader — Comprehensive Medical  
Terminology  
Health Information Management  
Association of Australia Ltd (HIMAA  
Ltd), Australia

# Consultants

## United States & Canada

**Danny McGuire** BS, MEd, PhD  
Professor and Chair  
Department of Chemistry, Physics, and  
Engineering  
Cameron University  
Lawton, Oklahoma

**Marc S. Micozzi** MD, PhD  
Adjunct Professor  
Department of Medicine  
University of Pennsylvania School of  
Medicine  
Philadelphia, Pennsylvania;  
Department of Pharmacology  
Georgetown University School of  
Medicine  
Washington, DC

**Linda Mollino** MSN, RN  
Director of Career and Technical  
Programs  
Health and Human Services  
Oregon Coast Community College  
Newport, Oregon

**Quanza E. Mooring** PhD RN  
Assistant Professor of Nursing  
Department of Nursing  
Texas Lutheran University  
Seguin, Texas

**Anne M. Moscony** OTD, CHT  
Occupational Therapist, Certified Hand  
Therapist  
Occupational Therapy  
University of St. Augustine for Health  
Science  
St. Augustine, Florida

**Krishan K. Pandey** PhD  
Associate Research Professor  
Molecular Microbiology and  
Immunology  
Saint Louis University  
St. Louis, Missouri

**Tim Randolph** PhD, MT(ASCP)  
Associate Professor  
Saint Louis University  
St. Louis, Missouri

**Joseph William Robertson** DDS, BS  
Department of Nursing and Health  
Professions  
Oakland Community College  
Royal Oak, Michigan

**Paula Denise Silver** BS, PharmD  
Medical Instructor  
School of Health Science  
ECPI University  
Newport News, Virginia

**Bhupinder Singh** MD  
Head Faculty of Health Sciences  
Health Sciences  
Biztech College  
Canadian All Care College  
University Health Network  
Jammu Medical College  
Ontario, Canada

**Paul St. Jacques** MD  
Professor of Anesthesiology  
Anesthesiology  
Vanderbilt University Medical Center  
Nashville, Tennessee

**Jennifer M. Stevenson** MHS,  
CCC-SLP, EdS  
Speech-Language Pathologist  
Great Beginnings Early Education  
Center  
Lee's Summit R-7 School District  
Therapy Relief at Hope  
Lee's Summit, Missouri

**Gary Thibodeau** PhD  
Chancellor Emeritus and Professor  
Emeritus of Biology  
University of Wisconsin—River Falls  
River Falls, Wisconsin

**Kajal Vora** FNP-C, MSN  
Family Nurse Practitioner  
Anesthesia Services  
Emory University Hospital  
Atlanta, Georgia

**Patti Ward** PhD, RT(R)  
Professor of Radiologic Technology  
Health Sciences  
Colorado Mesa University  
Grand Junction, Colorado

**Bradley M. Wright** PharmD, BCPS,  
FASHP  
Associate Clinical Professor  
Pharmacy Practice  
Auburn University Harrison School of  
Pharmacy  
Huntsville, Alabama

**Nancy H. Wright** RN, BS, CNOR(R)  
Wright Solutions  
Curriculum Development  
Health Care Education Compliance  
Helena, Alabama

**Wm. Kendall Wyatt** MD, RN, EMTP  
Chief Resident Physician  
Charleston Area Medical Center  
Charleston, West Virginia

**Jean Yockey** RN, PhD, MSN, FNP,  
ANA  
Assistant Professor  
Nursing  
University of South Dakota  
Vermillion, South Dakota

**Nicole B. Zeller** MSN, RN  
Nursing Faculty  
Nursing  
Lake Land College  
Mattoon, Illinois

# Editorial Board Members

## United States

- Marie T. O'Toole** EdD, RN, FAAN  
(Editor-in-Chief)

**Anne Brittain** PhD, RT(R)(M)(QM),  
CPHQ

**Boyd H. Davis** PhD
- Timm A. Knoerzer** PhD

**Janice A. Neil** PhD, RN

**Jane O'Brien** PhD, OTR/L

**Marcel Pop** MSN, RN
- Allan Schwartz** DDS, CRNA

**David W. Unkle** MSN, RN, APN,  
FCCM

# Guide to the Dictionary

## A. ALPHABETICAL ORDER

The entries are alphabetised in dictionary style—that is, letter by letter, disregarding spaces or hyphens between words:

<b>analgesic</b>	<b>artificial lung</b>
<b>anal membrane</b>	<b>artificially acquired immunity</b>
<b>analogue</b>	<b>artificial menopause</b>

(Alphabetised in telephone-book style, or word by word, the order would be different: **anal membrane** / **analgesic** / **analogue**; **artificial lung** / **artificial menopause** / **artificially acquired immunity**.)

The alphabetisation is alphanumerical: that is, words and numbers form a single list, numbers being positioned as though they were spelt-out numerals: **Nilstat** / **90-90 traction** / **ninth nerve**. (An example of the few exceptions to this rule is the sequence **17-hydroxycorticosteroid** / **5-hydroxyindoleacetic acid**, which can be found between the entries **hydroxochloroquine sulfate** and **hydroxyl**, not, as might be expected, **17-**... in letter ‘S’, and **5-**... in letter ‘F’.)

Small subscript and superscript numbers are disregarded in alphabetising: **No** / **N<sub>2</sub>O** / **nobelium**.

For the alphabetisation of prefixes and suffixes, see F.

## B. COMPOUND HEADWORDS

Compound headwords are given in their natural word order: **abdominal surgery**, not **surgery, abdominal**; **achondroplastic dwarf**, not **dwarf, achondroplastic**.

When appropriate, a reference is made elsewhere to the non-alphabetised element; the entry **dwarf**, for example, shows this indirect cross-reference: ‘... Kinds of dwarfs include **achondroplastic dwarf**, ...’ (followed by additional terms ending in ‘dwarf’).

There are few exceptions to this natural word order; nearly all of these concern formal classifications, for example: ‘**cop**ing, **defensive**, a nursing diagnosis accepted by the Eighth National Conference on the Classification of Nursing Diagnoses ...’.

(NOTE: In this guide, the term ‘headword’ is used to refer to any alphabetised and non-indented definiendum, be it a single-word term or a compound term.)

## C. MULTIPLE DEFINITIONS

If a headword has more than one meaning, the meanings are numbered and are often accompanied by an indication of the field in which a sense applies: ‘**fractionation**, **1**, (in neurology) ... **2**, (in chemistry) ... **3**, (in bacteriology) ... **4**, (in histology) ... **5**, (in radiotherapy) ...’.

Smaller differences in meaning are occasionally separated by semicolons: ‘**enervation**, **1**, the reduction or lack of nervous energy; weakness; lassitude, languor. **2**, removal of a complete nerve or of a section of nerve’.

Words that are spelt alike but have entirely different meanings and origins are usually given as separate entries, with superscript numbers: ‘**aural**<sup>1</sup>, pertaining to the ear or hearing ...’ followed by ‘**aural**<sup>2</sup>, pertaining to an aura’.

For reference entries that appear in the form of numbered senses, see the example of **hyperalimentation** at E.

## D. THE BOLDFACE ELEMENTS OF AN ENTRY

After the entry headword, which has large boldface type, the following elements may occur in boldface, in this order.

In boldface:

■ **HEADWORD ABBREVIATIONS:** **central nervous system (CNS)**  
A corresponding abbreviation entry is listed: ‘**CNS**, abbreviation for **central nervous system**.’ (For abbreviation entries, see F.)

Occasionally the order is reversed: ‘**DDT (dichlorodiphenyltrichloroethane)**’, with a corresponding reference entry: ‘**dichlorodiphenyltrichloroethane**. See **DDT**.’ (For reference entries, see E.)

■ **PLURAL OR SINGULAR FORMS** that are not obvious. The first form shown is the more common except when plurals are of more or less equal frequency: ‘**carcinoma**, *pl.* **carcinomas**, **carcinomata**’; ‘**cortex**, *pl.* **cortices**’; ‘**data**, *sing.* **datum**’.

A reference entry is listed only when the terms are alphabetically separated; for example, there are several entries between **data** and ‘**datum**. See **data**.’

■ **HIDDEN ENTRIES**, that is, terms that can best be defined in the context of a more general entry. For example, the definition of the entry **equine encephalitis** continues as follows: ‘... **Eastern equine encephalitis (EEE)** is a severe form of the infection ... **western equine encephalitis (WEE)**, which occurs ... **Venezuelan equine encephalitis (VEE)**, which is common in ...’.

The corresponding reference entries are ‘**eastern equine encephalitis**. See **equine encephalitis**.’; ‘**western equine encephalitis**. See **equine** ...’; and so forth. For further reference, from the abbreviations **EEE**, **WEE** and **VEE**, see F.

■ **INDIRECT CROSS-REFERENCES** to other defined entries, shown as part of the definition and usually introduced by ‘Kinds of’: ‘**dwarf**, ... Kinds of dwarfs include **achondroplastic dwarf**, **asexual dwarf** ... and **thanatophoric dwarf**.’

The entry referred to may or may not show a reciprocal reference, depending on the information value.

■ **SYNONYMOUS TERMS**, preceded by ‘Also called’, ‘Also spelt’, or, for verbs and adjectives, ‘Also’: ‘**abducens nerve**, ... Also called **sixth nerve**.’

A corresponding reference entry is usually given: ‘**sixth nerve**. See **abducens nerve**.’

Occasionally the synonymous term is accompanied by a usage label: ‘**abdomen**, ... Also called (*informal*) **belly**.’

If the synonymous term does not exist as a separate entry it is italicised: ‘**mitozantrone**, ... Also known as *mitoxantrone*.’

If a synonymous term applies to only one numbered sense, it precedes rather than follows the definition, to avoid ambiguity: ‘**algology**, **1**, the branch of medicine that is concerned with the study of pain. **2**, also called **phycology**, the branch of science that is concerned with algae.’ (Whenever a synonymous term follows the last numbered sense, it applies to all senses of the entry.)

■ **(DIRECT) CROSS-REFERENCES**, preceded by ‘See also’ or ‘Compare’, referring to another defined entry for additional information: ‘**abdominal aorta**, ... See also **descending aorta**.’



The cross-reference may or may not be reciprocal.

Cross-references are also made to illustrations, to tables, to the colour atlas, and to the appendices.

For cross-references from an abbreviation entry (with 'See'), see F.

■ PARTS OF SPEECH related to the entry headword, shown as run-on entries that do not require a separate definition: '**agitated**. . . — *agitate*, *v.*, **agitation**, *n*'.

## E. REFERENCE ENTRIES

Reference entries are undefined entries referring to a defined entry. There, they usually correspond to the boldface terms for which reference entries are mentioned at D.

However, many of the less often used synonymous terms are listed as a reference only; at the entry referred to, the reader's attention is not drawn to them with 'Also called'.

Some reference entries appear in the form of a numbered sense of a defined entry: '**hyperalimentation**, 1. overfeeding or the . . . demands of the appetite. 2. See **total parenteral nutrition**'. The latter entry says 'Also called **hyperalimentation**'.

If two or more alphabetically adjacent terms refer to the same entry or entries, they are styled as one reference entry: '**coxa adducta**, **coxa flexa**. See **coxa vara**'.

A reference entry that would be derived from a boldface term in an immediately adjacent entry is not listed again as a headword; it becomes a 'hidden reference entry': '**acardius amorphus**, . . . Also called **acardius anceps**'. But **acardius anceps** is not listed again as a reference entry because it would immediately *follow* the entry, the next entry being **acariasis**. Likewise: '**acoustic neuroma**, . . . Also called **acoustic neurilemmoma**, **acoustic neurinoma**, **acoustic neurofibroma**'. But the three synonymous terms are not listed again as reference entries because they would immediately *precede* the entry, the entry ahead being **acoustic nerve**. Therefore:

**If a term is not listed at the expected place, the reader might find it among the boldface terms of the immediately preceding or the immediately following entry.**

Selected American spellings are included where appropriate. These are included as reference entries that refer the reader to the English spelling containing the definition. After the definition, the American spelling is given as an alternative. For example: '**hematology**. See **haematology**'. The end of the definition for **haematology** says 'Also spelt **hematology**'. As with other reference entries, when the reference entry would immediately precede or follow the main entry, it is not included as a separate entry, as with '**hyperkalaemia**. . . Also spelt **hyperkalemia**'.

## F. OTHER KINDS OF ENTRIES

■ ABBREVIATION ENTRIES: Most abbreviation entries, including symbol entries, show the full form of the term in boldface: '**ABC**, abbreviation for **aspiration biopsy cytology**'; '**H**, symbol for the element **hydrogen**'. Implied reference is made to the entries **aspiration biopsy cytology** and **hydrogen** respectively.

Abbreviation entries for which there is no corresponding entry show the full form in italics: '**CBF**, abbreviation for *cerebral blood flow*'. '**f**, symbol for *respiratory frequency*'.

A combination of abbreviation entry and reference entry occurs when the abbreviation is that of a boldface or lightface term appearing under another headword. For example, the hidden entries at D (in addition to the reference entries shown

there) are also referred to in the following manner: '**EEE**, abbreviation for **eastern equine encephalitis**. See **equine encephalitis**'. An example with a lightface term: '**HLA-A**, abbreviation for *human leucocyte antigen A*. See **human leucocyte antigen**'. The latter entry says '. . . designated HLA-A, HLA-B, HLA-C . . .'.

■ PREFIXES AND SUFFIXES: The large number and the nature of prefix and suffix entries are an important feature of this dictionary. Through these entries the reader has additional access to the meanings of headwords and the words used in defining them. But such entries also give access to thousands of terms that are not included in this dictionary (and, to a large extent, are not found in any other reference work). For example, the entries **xylo-** and **-phage** (plus **-phagia**, **phago-** and **-phagy**) may lead to the meaning of 'xylophagous', namely, 'wood-eating'.

Prefix and suffix headwords consisting of variants are alphabetised by the first variant only. For example, '**epi-**, a prefix meaning "on, upon" . . .' is followed by **epiblast** (notwithstanding '**ep-**'). The other variant or variants are listed in their own alphabetical place as reference entries referring to the first variant: '**ep-**. See **epi-**'.

■ ENTRIES WITH SPECIAL PARAGRAPHS: Among the entries on diseases, drugs and procedures, at least 1100 feature special paragraphs, with headings such as:

*observations, interventions and care considerations*  
(for disease entries),  
*indications, contraindications and adverse effects*  
(for drug entries),  
*method, interventions and outcome criteria*  
(for procedure entries).

## G. FURTHER COMMENTS

■ EPONYMOUS TERMS THAT END IN 'SYNDROME' OR 'DISEASE' are generally spelt with an apostrophe (and 's' where appropriate) if they are based on the name of one person: **Adie's syndrome**; **Symmers' disease**; **Treacher Collins' syndrome** (the ophthalmologist Edward Treacher Collins). If they are based on the names of several people, they are generally without apostrophe: **Bernard-Soulier syndrome**; **Brill-Symmers disease**. (Note **Down syndrome**, which is an exception to these.)

■ ABBREVIATIONS AND LABELS IN ITALIC TYPE: The abbreviations are *pl.* (plural), *npl.* (noun plural), *sing.* (singular), *n.* (noun), *adj.* (adjective), *v.* (verb). The recurring labels are *slang*, *informal*, *non-technical*, *obsolete*, *archaic*, *chiefly British*, *Canada*, *US*.

■ DICTIONARY OF FIRST REFERENCE for general spelling preferences is either *The Macquarie Dictionary* or *The Australian Oxford Dictionary*.

## H. PRONUNCIATION

■ SYSTEM: See the Pronunciation Key. The pronunciation system of this dictionary is basically a system that most readers know from their use of popular English dictionaries, especially the major ones. All symbols for English sounds are ordinary letters of the alphabet with few adaptations, and with the exception of the schwa, /ə/ (the neutral vowel).

■ ACCENTS: Pronunciation, given between slashes, is shown with primary and secondary accents, and a raised dot shows that two vowels or, occasionally, two consonants, between the slashes are pronounced separately:

**anoopsia** /an'ō · op'sēə/  
**caecoleostomy** /-il'ē · os'təmē/  
**methaemoglobin** /met'hēməglō'bin/

Without the primary stress mark, the /th/ in the last example would be pronounced as in ‘thin’. (The pronunciation key lists the following paired consonant symbols as representing a single sound: /ch/, /ng/, /sh/, /th/, /th/, /zh/, and the foreign sounds /kh/ and /kh/—if no raised dot or primary stress mark intervenes.)

■ TRUNCATION: Pronunciation may be given in truncated form, especially for alternative or derived words:

**creatinine** /krē·at’inēn, -nin/

■ LOCATION: Pronunciation may be given for any boldface term, including the plural term following the headword:

**coccus** /kok’əs/, *pl. cocci* /kok’i/ . . . , a bacterium. . .

■ LETTERWORD VERSUS ACRONYM: Letterwords are abbreviations that are pronounced by sounding the names of each letter, whereas acronyms are pronounced as words. If the pronunciation of an abbreviation is not given, the abbreviation is usually a letterword:

**ABO blood groups** [read /ā’bō’ō/, not /a’bō/]

If the pronunciation is an acronym, this is indicated by pronunciation:

**AWOL** /ā’wol/

Some abbreviations are used as both:

**JAMA** /ja’mə, jā’ā’em’ā/

■ FOREIGN SOUNDS: Non-English sounds do not occur often in this dictionary. They are represented by the following symbols:

/œ/ as in (French) **feu** /fœ/, **Europe** /œrōp’/; (German) **schön** /shœn/, **Goethe** /gœ’tə/

/Y/ as in (French) **tu** /tY/, **déjà vu** /dāzhävY’/; (German) **grün** /grYn/, **Walküre** /vulkY’rə/

/kh/ as in (Scottish) **loch** /lokh/; (German) **Rorschach** /rōr’-shokh/

/kh/ as in (German) **ich** /ikh/

/N/ This symbol does not represent a sound but indicates that the preceding vowel is a nasal, as in French **bon** /boN/, **enface** /āNfās’/, or **international** /āNternäsyōnāl’/.

/nyə/ Occurring at the end of French words, this symbol is not truly a separate syllable but an /n/ with a slight /y/ (similar to the sound in ‘onion’) plus a near-silent /ə/, as in **Bois de Boulogne** /boolō’nyə/, **Malgaigne** /mälgā’nyə/.

Because this work is a subject dictionary rather than a language dictionary, certain foreign words and proper names are rendered by English approximations. Examples are **Niemann** /nē’mōn/ (which is closer than /nē’män/), **Friedreich’s** /frē-d’rīks/ (which is close enough for anyone not used to pronouncing /kh/), or **jamaïs vu** /zhāmāvY’/. Depending on usage, a foreign word or name may be given with near-native pronunciation, with entirely assimilated English pronunciation (as **de Quervain’s fracture** /də kərvānz’/), or with both (as **Dupuytren’s contracture** /dYpY·itraNs’, dēpē’itranz’/ or **Klippel-Feil syndrome** /klipēl’fel’, klip’əlfil’/). The English speaker should not hesitate to follow whatever is usage in his or her working or social environment.

Many of the numerous *Latin* terms in this dictionary are not given with pronunciation, mainly because there are different ways (all of them understood) in which Latin is pronounced by the English speaker and may be pronounced by speakers elsewhere. However, guidance is given in some cases to reflect common usage.

■ LATIN AND GREEK PLURALS: The spelling of Latin and Greek plurals is shown in most instances. However, when the plural formation is regular according to Latin and Greek rules, the pronunciation is usually not included. The following list shows suggested pronunciation of plural endings often encountered in the field of medicine:

PLURAL ENDINGS

-a /ə/

-ae /-ē/

-ces /-sēz/

-era /-əɾə/

-ges /-jēz/

-i /-ī/

-ia /-ē·ə/

-ides /-idēz/

-ina /-ənə/

-ines /-ənēz/

-omata

/-ō’matə/

-ones /-ō’nēz/

-ora /-əɾə/

-ses /-sēz/

-udes

/-yōō’dēz/

-us /-ōös/

EXAMPLES

**inoculum**, *pl. inocula* /inok’yōōlə/

**vertebra**, *pl. vertebrae* /vur’təbrē/

**thorax**, *pl. thoraces* /thōr’əsēz/

**apex**, *pl. apices* /ā’pisēz/

**genus**, *pl. genera* /jen’əɾə/

**meninx**, *pl. meninges* /minin’jēz/

**calculus**, *pl. calculi* /kal’kyəlī/

**criterion**, *pl. criteria* /krītir’ē·ə/

**epulis**, *pl. epulides* /ipyōō’lidēz/

**foramen**, *pl. foramina* /fəram’ənə/

**lentigo**, *pl. lentigines* /lentij’ənēz/

**haematoma**, *pl. haematomata*

/hē’matō’matə/

**comedo**, *pl. comedones* /kom’ədō’nēz/

**corpus**, *pl. corpora* /kôr’pəɾə/

**femur**, *pl. femora* /fem’əɾə/

**analysis**, *pl. analyses* /ənal’əsēz/

**incus**, *pl. incudes* /inkyōō’dēz/

**ductus** (/duk’təs/), *pl. ductus* /duk’tōös/

NOTE: Notwithstanding the listing of Latin and Greek plurals in this dictionary, and notwithstanding the foregoing examples, in most instances it is acceptable or even preferable to pluralise Latin and Greek words according to the rules of English words. (For certain kinds of entries, both the English and the foreign plurals are given in this dictionary, usually showing the English form first, as, for example, in nearly all **-oma** nouns: **haematoma**, *pl. haematomas*, **haematomata**.)

I. ETYMOLOGIES AND EPONYMS

The word roots, or etymologies, of the headwords in this dictionary are shown in square brackets following the pronunciations. Meanings are given in roman typeface and represent the original connotation of the word from which the medical term is derived. In compound medical terms formed from two or more elements, a plus sign (+) is used to indicate an element has been translated in a previous headword, as in [L, *acidus* + Gk, *philein*, to love]. A semicolon is used to separate word elements having more than one origin, as in [L, *abdomen*; Gk, *skopein*, to view]. Word fragments representing etymological elements, such as prefixes, are separated from the rest of the word root by a comma, as in [Gk, *a*, *basis*, not step].

The following abbreviations are used to identify language sources:

Afr	African	Jpn	Japanese
Ar	Arabic	L	Latin
AS	Anglo-Saxon	ME	Middle English
D	Dutch	OE	Old English
Dan	Danish	OFr	Old French
Fr	French	ONorse	Old Norse
Ger	German	Port	Portuguese
Gk	Greek	Scand	Scandinavian
Heb	Hebrew	Sp	Spanish
It	Italian	Swe	Swedish

Some other language sources, such as Māori, Singhalese or Welsh, may be indicated without abbreviations.

Eponymous entries, in which the surname of an individual is incorporated in the headword, are also treated in square brackets with brief biographic details, as in **Alcock’s canal** [Benjamin Alcock, Irish anatomist, b. 1801]. When an eponym contains two or more surnames, a semicolon is used to separate the identities of the individuals. Medical terms derived from other proper nouns, such as geographic sites, are presented in a similar manner, as **calabar swelling** [Calabar, a Nigerian seaport], or **ytterbium (Yb)** [Ytterby, Sweden].



# Pronunciation Key

Vowels		Consonants	
SYMBOLS	KEY WORDS	SYMBOLS	KEY WORDS
/a/	hat	/b/	book
/ä/	father	/ch/	chew
/ā/	fate	/d/	day
/e/	flesh	/f/	fast
/ē/	she	/g/	good
/er/	ferry	/h/	happy
/i/	sit	/j/	gem
/ī/	eye	/k/	keep
/ir/	ear	/l/	late
/o/	proper	/m/	make
/ō/	nose	/n/	no
/ô/	saw	/ng/	sing, drink
/oi/	boy	/ng·g/	finger
/ōō/	move	/p/	pair
/oo/	book	/r/	ring
/ou/	out	/s/	set
/u/	cup, love	/sh/	shoe, lotion
/ur/	fur, first	/t/	tone
/ə/	(the neutral vowel, always unstressed), as in ago, focus, teacher, doctor	/th/	thin
		/th/	than
		/v/	very
		/w/	work
		/y/	yes
		/z/	zeal
		/zh/	azure, vision

For /œ/, /Y/, /kh/, /kh/, /N/ and /nyə/, see FOREIGN SOUNDS, in H.

Australia@elsevier



**J**, abbreviation for **joule**.

**Jaccoud's dissociated fever** /zhäkööz' disō'sē·ā'təd fē'vər/ [Sigismond Jaccoud, French physician, 1830–1913; L, *dissociationem*, a separation, *febris*, fever], a form of meningitic fever accompanied by a paradoxical slow pulse rate.

**jacket** /jäk'it/ [ME, *jaket*], a supportive or confining therapeutic casing or garment for the torso. It is also used to prevent oedema in the extremities. See also **Minerva cast**, **Sayre's jacket**.

**jacket restraint** /jäk'it ristṛānt'/ [ME, *jaket*], an orthopaedic device used to help immobilise the trunk of a patient in traction and to discourage the patient from sitting up in bed. The jacket restraint is attached to both sides of the bedspring frame by means of buckled webbing straps that are sewn into the side seams of the restraint. The jacket restraint may be used with most kinds of traction, but is not usually used with Dunlop skin traction, Dunlop skeletal traction, Bryant traction, halofemoral traction, or halopelvic traction. Compare **diaper restraint**, **sling restraint**.

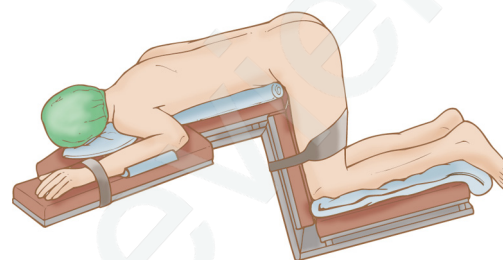


**Jacket restraint** (Courtesy Medline Industries)

**jackknife position** /jak'nif pəzish'ən/ [L, *positionem*, placing], an anatomical position in which the patient is placed on the stomach with the hips flexed, the knees bent at a 90° angle, and the arms outstretched in front of the patient. Examination and instrumentation of the rectum are facilitated by this position.

**jackscrew** /jak'skrō/, a threaded device used in orthodontic appliances for the separation or approximation of teeth or jaw segments.

**Jackson crib** /jäk'sən krib/ [V. H. Jackson, New York dentist], a removable orthodontic appliance retained in position by crib-shaped wires.



**Jackknife position** (Rothrock, 2011)

**Jacksonian epilepsy** /jak·sō'nē·ən ep'ilep'sē/ [John H. Jackson, English neurologist, 1835–1911; Gk, *epilepsia*, seizure], epilepsy characterised by focal motor seizures with unilateral clonic movements that start in one group of muscles and spread systematically to adjacent groups, reflecting the march of the epileptic activity through the motor cortex. In **Jacksonian march**, the seizures are due to a discharging focus in the contralateral motor cortex.

**Jacksonian march** /jak·sō'nē·ən mahrch/ [John H. Jackson, English neurologist, 1835–1911], the spread of abnormal electrical activity from one area of the cerebral cortex to adjacent areas, characteristic of **Jacksonian epilepsy**. Also called **cortical march** and **epileptic march**.

**Jacksonian seizure** /jak·sō'nē·ən sē'zhə/ [John H. Jackson, English neurologist, 1835–1911; OFr, *seisir*, to grasp], a series of focal seizures with unilateral clonic movements that start in one group of muscles and spread systematically to adjacent groups, reflecting the march of the epileptic activity through the motor cortex.

**Jackson's sign** /jak·sō'nz sin/ [John H. Jackson, English neurologist, 1835–1911], (in hemiparesis) an observation that during quiet respiration the movement of the paralysed side of the chest may be greater than that of the opposite side. However, the paralysed side moves less under forced respiration.

**Jackson tracheostomy tube** /jak·sō'n tra'kē·os'təmē tyōōb/ [Gk, *tracheia*, 'rough artery', *stoma*, mouth; L, *tubus*], trademark for a silver tracheostomy tube with a rubber cuff built onto the tube. The design is intended to prevent accidental migration of the cuff off the end of the tube, causing interference with airflow to the patient.

**Jacquemier's sign** /zhäkmē·āz' sin/ [Jean M. Jacquemier, French obstetrician, 1806–1879; L, *signum*, mark], a deepening of the colour of the vaginal mucosa just below the urethral orifice. It may sometimes be noted after the fourth week of pregnancy, but is not a reliable sign of pregnancy.

**jactitation** /jak'titā'shən/ [L, *jactare*, show off, display], twitchings or spasms of muscles or muscle groups, as observed in the restless body movements of a patient with a severe fever.



**jail fever.** See **epidemic typhus**.

**JAK2**, gene coding for a protein tyrosine kinase that promotes growth and division of cells. Tyrosine kinase is part of a signalling pathway called the JAK/STAT pathway, transmitting chemical signals from the cell's exterior environment to the cell's nucleus. The JAK2 protein controls production of blood cells from haematopoietic stem cells in the bone marrow, which have the potential to develop into red blood cells, white blood cells, and platelets. Mutations in this gene are associated with haematological disorders, such as **polycythaemia rubra vera**.

**Jakob–Creutzfeldt disease.** See **Creutzfeldt–Jakob disease**.

**JAMA** /jam'ə, jə'a'em'ə/, abbreviation for the *Journal of the American Medical Association*.

**jamais vu** /zhāmāv'Y/ [Fr, never seen], the sensation of being a stranger when with a person one knows or when in a familiar place. The phenomenon occurs occasionally in healthy people, but more frequently in those who have epileptic seizures arising from the temporal lobe. Compare **déjà vu**.

**Janeway lesion** /jān'wā lē'zhen/ [Edward G. Janeway, American physician, 1841–1911; L, *laedere*, to injure], a small, erythematous, or haemorrhagic macule on the palm or sole. It is associated with subacute bacterial endocarditis.



**Janeway lesion** (Talley and O'Connor, 2010)

**janiceps** /jan'æseps/ [L, *Janus*, two-faced Roman god, *caput*, head], a conjoined twin fetus in which the heads are fused, with the faces looking in opposite directions. The faces and bodies of both twins may be fully formed, or one member may be only partially formed and act as a parasite on the more fully developed fetus.

**Jansen's disease.** See **metaphyseal dysostosis**.

**Japanese encephalitis (JE)** /japə'nēz ēn-sēf'ə-lī'tis/ [Gk, *enkephalos*, brain, *itis*, inflammation], a severe epidemic infection of brain tissue seen in East and South-East Asia and the South Pacific, including occasionally the northern parts of Australia (e.g. the Torres Strait Islands). The virus is carried by domestic pigs and wild birds. The disease is characterised by shaking chills, paralysis, and weight loss and is caused by *Flavivirus* transmitted by mosquitoes. Symptoms include headache, fever, neck stiffness, tremors, seizures, spastic paralysis, and coma. The mortality rate ranges widely from 0.3% to 60%. Various neurological and psychiatric sequelae are common. An inactivated JE vaccine is available and recommended for travel to endemic areas. Treatment is supportive. Also called **Japanese B encephalitis**.

**Japanese encephalitis vaccine** /japə'nēz en'sēf'ə-lī'tis vak'sēn/ [Gk, *enkephalos*, brain, *itis*, inflammation; L, *vaccinum*, cow], an inactive virus vaccine.

■ **INDICATIONS** Recommended for all residents older than 1 year in the outer islands of the Torres Strait and non-residents working for more than 30 days or during the wet season, also for travellers to areas where the virus is endemic, including

the western province of Papua New Guinea, spending more than 4 weeks in rural areas, or 12 months or more in urban areas.

■ **CONTRAINDICATIONS** Previous serious allergic reaction to the vaccine or allergy to gelatin or rodent proteins.

■ **ADVERSE EFFECTS** Common reactions include headache, malaise, dizziness, myalgia, fever, rash, chills, nausea, vomiting, and abdominal pain.

**Japanese flood fever, Japanese river fever.** See **scrub typhus**.

**JAPHA** /jaf'ə, jə'a'pē'ach'ə/, abbreviation for the *Journal of the American Public Health Association*.

**Jarcho–Levin syndrome** /jār'kō·lev'in sin'drōm/ [Saul Wallenstein Jarcho, American physician, 1906–2000; Paul M. Levin, American physician, 20th century; Gk, *syn*, together, *dromos*, course], an autosomal recessive disorder consisting of multiple vertebral defects, short thorax, rib abnormalities, camptodactyly, and syndactyly; urogenital abnormalities are sometimes present. Death, from respiratory insufficiency, usually occurs in infancy. Also called **spondylothoracic dysplasia**.

**jargon** /jār'gən/ [Fr, *jargonner*], 1. incoherent speech or gibberish, sometimes occurring in persons with speech or language disorders (e.g. fluent aphasia). 2. terminology used by scientists, artists, or others of a professional subculture that is not understood by the general population.

**jargon aphasia** /jār'gən/ [Fr, *jargonner*; Gk, *a*, not, *phasis*, speech], a form of speech in which several words are combined in a single word but in a jumbled manner, with incorrect accents or words mixed with neologisms. Although outwardly incomprehensible, the speech may be meaningful when analysed by a psychotherapist. It is noted in psychosis, especially the disorganised type. Also called **word salad**.

**Jarisch–Herxheimer reaction** /jā'risherks'hīmə rē·ak'shən/ [Adolph Jarisch, Austrian dermatologist, 1850–1902; Karl Herxheimer, German dermatologist, 1861–1944; L, *re*, again, back, *agere*, to do], an acute febrile reaction that may follow therapy for syphilis, leptospirosis, or relapsing fever. It is often accompanied by headache and myalgia, rigors, hyperventilation, and confusion, and is more common in patients with early syphilis. Pregnant women should be warned that early labour is a possible result of the reaction. It is caused by the host's reaction to the dying bacteria following antibiotic therapy.

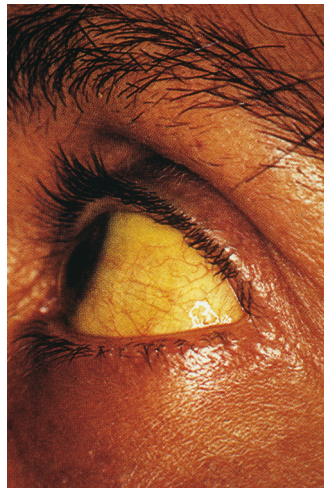
**Jarvik-7** [Robert K. Jarvik, American cardiologist, b. 1946], (obsolete) an artificial heart designed by Jarvik for use in humans. This early model depended on air pressure to drive the ventricles. It is no longer in use in clinical practice.

**jaundice** /jōm'dis/ [Fr, *jaune*, yellow], a yellow discoloration of the skin, mucous membranes, and sclerae of the eyes, caused by greater than normal amounts of bilirubin in the blood. Jaundice is a symptom of many disorders, including liver diseases, biliary obstruction, and the haemolytic anaemias. Physiological jaundice commonly develops in newborns and disappears after a few days. Rarer disorders causing jaundice are **Crigler–Najjar syndrome** and **Gilbert's syndrome**. Useful diagnostic procedures include a clinical evaluation of the signs and symptoms of underlying causes, tests of liver function, and for haemolysis. Also called **icterus**. See also **anicteric hepatitis, hyperbilirubinaemia**. —**jaundiced**, adj.

**jaw** /jə/ [ME, *jowe*], a common term used to describe the maxillae and the mandible and the soft tissue that covers these structures, which contain the teeth and form the framework for the mouth. See also **jaw relation**.

**jaw reflex** /jə rē'fleks/ [ME, *jawe*; L, *reflectere*, to bend back], an abnormal reflex elicited by tapping the chin with a rubber hammer while the mouth is half open and the jaw muscles are



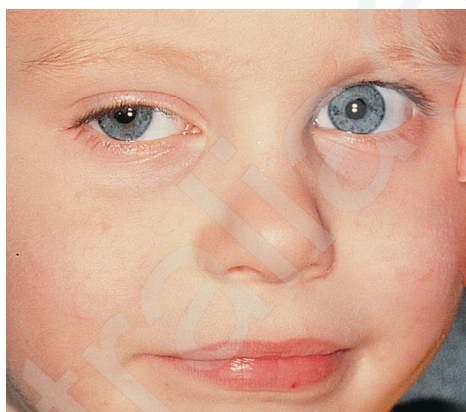


**Jaundiced sclera** (Emond, Wellsby and Rowland, 2003)

relaxed. A quick snapping-shut of the jaw implies damage to the area of cerebral cortex governing motor activity of the fifth cranial nerve. Also called **chin reflex** and **mandibular reflex**.

**jaw relation** /jə/ [ME, *jowe*], any relation of the mandible to the maxilla.

**jaw-winking** /jə-wɪŋkɪŋ/ [ME, *jowe*], an involuntary facial movement phenomenon in which the eyelid droops, usually on one side of the face, when the jaw is closed but raises when the jaw is opened or when the jaw is moved from side to side. The raising of the eyelid often appears exaggerated. Also called **Gunn syndrome**, **Marcus Gunn syndrome**. See also **Marin Amat's syndrome**.



**Jaw-winking** (Yanoff and Duker, 2009)

**JB**, abbreviation for **Joanna Briggs Institute**.

**J chain**, a polypeptide chain that holds immunoglobulin A (IgA) dimers and IgM pentamers together.

**J/deg**, abbreviation for **joules per degree**.

**Jefferson fracture** /jɛf'ɛr-sɒn fræk'tʃə/ [Sir Geoffrey Geoffrey, English neurologist and neurosurgeon, 1886–1961; L, *frangere*, to break], a fracture characterised by bursting of the ring of the first cervical vertebra.

**jejuna**. See **jejunum**.

**jejunal** /jɪjoo'nəl/ [L, *jejunus*, empty], pertaining to the **jejunum**, the length of intestine between the duodenum and the ileum.

**jejunal feeding tube** /jɪjoo'nəl/ [L, *jejunus*, empty], a hollow tube inserted into the jejunum through the abdominal wall for

administration of liquefied foods to patients who have a high risk of aspiration. See also **enteral tube feeding**, **tube feeding**.

**jejunectomy** /jɪj'oonɛk'təmē/ [L, *jejunus*, empty; Gk, *ektomē*, a cutting out], the surgical removal of all or part of the jejunum.

**jejuno-**, combining form meaning 'the jejunum': *jejunocaecostomy*, *jejunocolostomy*, *jejunotomy*.

**jejunocolostomy** /jɪjoo'nɔkəlos'təmē/ [L, *jejunus*, empty; Gk, *kolon*, large intestine, *stoma*, mouth], the surgical creation of an anastomosis between the jejunum and the colon.

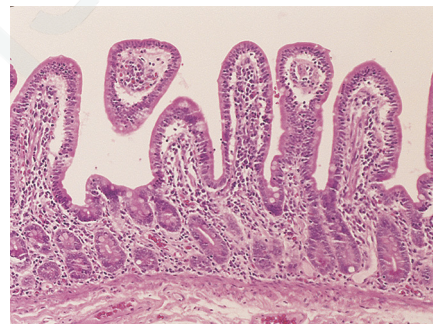
**jejunoileitis**. See **Crohn's disease**.

**jejunostomy** /jɪj'oonos'təmē/ [L, *jejunus*, empty; Gk, *stoma*, mouth], a surgical procedure to create an artificial opening to the jejunum through the abdominal wall. It may be a permanent or a temporary opening.

**jejunostomy feeding**. See **tube feeding**.

**jejunotomy** /jɪjoo'nəlo'təmē/ [L, *jejunus*, empty; Gk, *tomē*, incision], a surgical incision in the jejunum.

**jejunum** /jɪjoo'nəm/ [L, *jejunus*, empty], the intermediate or middle of the three portions of the small intestine, connecting proximally with the duodenum and distally with the ileum. The jejunum has a slightly larger diameter, a deeper colour, and a thicker wall than the ileum and contains heavy, circular folds that are absent in the lower part of the ileum. The jejunum also has larger villi than the ileum. Compare **ileum**. —**jejunal**, adj.



**Jejunum** (Kumar, Abbas and Fausto, 2005)

**jelly** /jɛl/ [L, *gelare*, to congeal], a semisolid non-liquid colloidal solution. See also **gel**.

**jellyfish sting** /jɛl'ē-fɪʃ stɪŋ/ [L, *gelare*, to congeal; OE, *fisc*, fish, *stingan*, to prick], a dermal injury secondary to direct contact with a jellyfish, a sea animal with a bell-shaped gelatinous body and numerous suspended, long tentacles containing stinging structures. In most cases a tender, red welt develops on the affected skin. There are a few jellyfish in Australasia that have caused deaths in humans, including the box jellyfish and irukandji jellyfish. See also **box jellyfish**, **irukandji syndrome**.

**Jendrassik's manoeuvre** /jɛndrə'shiiks mənoʊ'və/ [Ernst Jendrassik, Hungarian physician, 1858–1921; Fr, *manoeuvre*, work by hand], (in neurology) a diagnostic procedure in which the patient hooks the flexed fingers of the two hands together and forcibly tries to pull them apart. While this tension is being exerted the lower extremity reflexes, particularly the patellar reflex, are tested.

**jerk**, 1. a sudden abrupt motion such as a thrust, yank, push, or pull. 2. a fast muscular contraction induced when a tendon over a bone is tapped. See also **spasm**.

**jerk finger**. See **trigger finger**.

**jerk nystagmus** /nɪstəg'məs/ [Gk, *nystagmos*, nodding], a slow drift of the eyes in one direction, followed by a rapid recovery movement in the other direction.



**Tissue necrosis caused by a jellyfish sting** (Reproduced with permission from ©DermNet [www.dermnetnz.org](http://www.dermnetnz.org) 2024.)

**jerks**, a form of choromania, or morbid desire to make rhythmic movements, sometimes associated with emotional fervour.

**Jessner's lymphocytic infiltrate** /lim'fəsitik infil'trāt/ [Max Jessner, German—US dermatologist, 1887–1978; L, *lymph*, water; Gk, *kytos*, cell; L, *in*, within, *filtr*, to strain through felt], inflammatory skin disease characterised by erythematous smooth plaques on the face, neck, and upper trunk that may be aggravated by sun exposure. May be a form of lupus tumidus. See also **cutaneous lupus erythematosus**.

**jet humidifier** /jet hyōmid'ifi'zə/ [Fr, *jeter*, waterspout; L, *humidus*, moist, *facere*, to make], a humidifier that increases the surface area for exposure of water to gas by breaking the water into small aerosol droplets. Air or a gas passes through a restriction after entering the humidifier, producing a foaming mixture of liquid and gas. Gas issuing from the unit has a maximum amount of water vapour and a minimum of liquid water particles.

**jetlag**, a condition caused by disruption of the normal circadian rhythm resulting from rapid travel across several time zones. It is characterised by fatigue, insomnia, and sluggish body functions.

**jet nebuliser** /jet neb'yəli'zə/ [Fr, *jeter*, a water spurt; L, *nebula*, mist], a humidifier that uses Bernoulli's principle to convert a pool of liquid into a fine mist of aerosol particles. A jet-stream of gas is projected at high velocity across the end of a capillary tube. The gas jet reduces the pressure at the top of the tube, causing the liquid to move to the top, where it is continuously drawn off as aerosol particles that enter the outflow passage of the humidifier.

**Jeune's syndrome** /zhœnz, zhōnz sin'drōm/ [Mathis Jeune, French paediatrician, b. 1910], See **asphyxiating thoracic dysplasia**.

**Jewett brace**. See **Griswald brace**.

**jigger**. See **chigoe**.

**jimson weed** /jim'sən/, a common name for *Datura stramonium*, a poisonous plant with large, trumpet-shaped flowers. It is a member of the solanaceous group and has anticholinergic properties. See also **cholinergic crisis**.

**jing luo**, the channels or meridians in the body through which the ch'i (qi) flows; a term used in traditional Chinese medicine.

**jitters**, 1. irregularities in ultrasound echo locations caused by mechanical or electronic disturbances. 2. a very uneasy, nervous feeling.

**J/kg**, abbreviation for **joules per kilogram**.

**Joanna Briggs Institute (JBI)** [Joanna Briggs, first matron of the Adelaide Hospital], an international group of coordinated

but self-governing collaborating centres that aim to promote evidence-based healthcare. Established in 1996 and based in Adelaide.

**Jobst garment**, trademark for a type of pressure wrap applied to control hypertrophic scar formation or lymphoedema.

**jock itch**. See **tinea cruris**.

**JOD**, abbreviation for **juvenile-onset diabetes**. See also **type 1 diabetes mellitus**.

**Jod-Basedow phenomenon** /jod'bä'zədō' finom'ənən/ [Ger, *Jod*, iodine, Karl A. von Basedow, German physician, 1799–1854], thyrotoxicosis that may occur when dietary iodine is given to a patient with endemic goitre in an area of environmental iodine deficiency. It is presumed that iodine deficiency protects some patients with endemic goitre from development of thyrotoxicosis. The phenomenon may also occur when large doses of iodine are given to patients with non-toxic multinodular goitre in areas with sufficient environmental iodine. Also called **iodine-induced hyperthyroidism**.

**Joel Cohen incision** /insizh'ən/ [L, *incidere*, to cut into], the abdominal incision of choice for caesarean section. It is a transverse incision made 3 cm above the pubic symphysis in a straight line. The underlying tissue layers are opened by blunt dissection. Subcutaneous tissue and the anterior rectus sheath are incised a few centimetres in the midline using a scalpel, followed by lateral extension by blunt dissection. If required, the use of scissors, rather than a scalpel, is recommended. This incision is associated with reduced operating time and postoperative febrile morbidity, in comparison with a Pfannenstiel incision. Compare **Pfannenstiel incision**.

**Joffroy's reflex** /zhôfrō·'āz', jof'roiz rē'fleks/ [Alexis Joffroy, French physician, 1844–1908; L, *reflectere*, to bend back], a reflex contraction of the gluteus muscles produced when firm pressure is applied to the buttocks of patients with spastic paralysis of the lower limbs.

**Joffroy's sign** /zhôfrō·'āz', jof'roiz sīn/ [Alexis Joffroy, French physician, 1844–1908], 1. an upwards direction of a patient's gaze, caused by the absence of facial muscle contraction in ophthalmic goitre. 2. an inability to perform simple mathematical exercises, such as addition or multiplication, caused by an organic brain disease.

**jogger's heel**, a painful condition characterised by bruising, bursitis, fasciitis, or calcaneal spurs that results from repetitive and forceful striking of the heel on the ground. It is common among joggers and distance runners. Judicious selection of well-fitting running shoes and avoidance of running on hard surfaces are recommended to prevent occurrence or recurrence of the condition.

**John Richards Centre for Rural Ageing Research**, a research centre based at La Trobe University in Melbourne, focused on rural aged care.

**Johnson, Dorothy E.** [Dorothy E. Johnson, American nurse, 1919–1999], a nursing theorist who developed a behavioural systems model presented in *Conceptual Models for Nursing Practice* (Riehl and Roy (eds), 1973). Johnson's theory addresses two major components: the patient and nursing. The patient is a behavioural system with seven interrelated subsystems. Each subsystem has structural and functional requirements. The structural elements include drive or goal; predisposition to act; choice, alternatives for action; and behaviour. The attachment—affiliative subsystem forms the basis for all social organisation. The dependency subsystem promotes helping behaviour. The biological (ingestive and eliminative) and sexual subsystems have to do with social and psychological functions as well as biological considerations. The function of the achievement subsystem is to attempt to manipulate the environment. The functions of the aggressive subsystem are protection and preservation. Johnson considered that problems in nursing are caused by



disturbances in the structure or functions of the subsystems or the system. Her behavioural systems theory provides a conceptual framework for nursing education, practice, and research.

**joint** /joynt/ [L, *junction*, to join], any one of the articulations between bones. Each is classified according to structure and mobility as fibrous, cartilaginous, or synovial. Fibrous joints are immovable, cartilaginous joints slightly movable, and synovial joints freely movable. Typical immovable joints are those connecting most of the bones of the skull with a sutural ligament. Typical slightly movable joints are those connecting the vertebrae and the pubic bones. Most of the joints in the body are freely movable and allow gliding, circumduction, rotation, and angular movement. Also called **articulation**. See also **cartilaginous joint**, **fibrous joint**, **synovial joint**.

**joint and several liability**, (in law) the situation where several persons share the liability for a plaintiff's injury and may be found liable individually or as a group.

**joint appointment**, an appointment of a person to two institutions within a university or system, or to a university and a healthcare organisation.

**joint audit**. See **nursing audit**.

**joint capsule** /joynt kap'syəl/capsulae/ [L, *junction*, to join, *capsula*, little box], a fibrous, sac-like structure of connective tissue that envelops the end of bones in a diarthroidal joint and contains synovial fluid.

**joint fracture**. See **intraarticular fracture**.

**joint instability** /joynt in'stə-bīl'ī-tē/ [L, *junction*, to join, *instabilis*, unsteady], an abnormal increase in joint mobility. See also **hypermobility**.

**joint planning**, the development by two or more healthcare providers of a strategic plan to serve the healthcare needs of an area while sharing clinical or administrative services or data, but not assets.

**joint practice**, 1. the practice of one or more doctors, nurses, and other health professionals, usually private, who work as a team, sharing responsibility for a group of patients. 2. the practice of making joint decisions about patient care by committees of the doctors and nurses working on a division.

**joint protection** /joynt prō·tek'shən/ [L, *junction*, to join], the use of orthotics with therapeutic exercise to prevent damage or deformity of a joint during rehabilitation to restore power and range of motion. An example is a metal ankle-foot orthosis that allows weight-bearing on an extended knee.

**Jones criteria** [T. D. Jones, US physician, 1899–1954], a standardised set of guidelines for the diagnosis of rheumatic fever. See also **rheumatic fever**.

**Joseph disease**. See **Machado–Joseph disease**.

**Joubert's syndrome** /zhōō·bärz' sin'drōm/ [Marie Joubert, Canadian neurologist, 20th century; Gk, *syn*, together, *dromos*, course], an autosomal recessive syndrome consisting of partial or complete agenesis of the cerebellar vermis, with hypotonia, episodic hyperpnoea, intellectual disability, and abnormal eye movements; most patients die in infancy.

**joule (J)** /jōōl/ [James P. Joule, English physicist, 1818–1889], the SI unit of energy that has replaced the calorie. Equal to the amount of energy used when a force of 1 newton acts through a distance of 1 metre, it is a very small unit of energy, so the kilojoule ( $10^3$  J) or megajoule ( $10^6$  J) is used in most nutritional contexts. See also **kilojoule**.

**Journal of Health Administration**, an Australian publication focusing on the management and administration of healthcare delivery and governance.

**Journal of Quality in Clinical Practice**, an Australian publication focusing on total quality management of clinical practice and healthcare delivery.

**J-pouch**, a faecal reservoir formed surgically by folding over the lower end of the ileum in an ileoanal anastomosis.

**JRA**, abbreviation for **juvenile rheumatoid arthritis**.

**Judd method**, a technique for positioning a patient for radiographic examination of the atlas and odontoid process. It involves a PA projection with the chin extended and the central ray directed midline through the occiput at the upper margin of the thyroid cartilage.

**judgment** /juj'mənt/ [OFr, *jugement*, diagnosis], 1. (in law) the final decision of the court regarding the case before it. 2. the reason given by the court for its decision; an opinion. 3. an award, penalty or other sentence of law given by the court. 4. the ability to recognise the relationships of ideas and to form correct conclusions from those data as well as from those acquired from experience.

**judgment call** /juj'mənt/, (slang) a decision based on experience, especially a judgment that resolves a serious problem in which the data are inconclusive or equivocal.

**jug-**, 1. combining form meaning 'a yoke type of connection': *jugal*, *jugum*, *conjugal*. 2. a combining form meaning 'collarbone, throat, neck': *jugular*, *jugate*.

**jugal** /jōō'gəl/ [L, *jugum*, yoke], pertaining to structures attached or yoked, such as the zygomatic bone or malar bone.

**jugu-**, a combining form meaning 'to kill': *jugulate*, *jugulation*.

**jugular** /jug'yələ/ [L, *jugulum*, neck], 1. pertaining to or involving the throat. 2. (informal) the jugular vein.

**jugular foramen** /jug'yələ fōrā'mən/ [L, *jugulum*, neck, *foramen*, hole], one of a pair of openings between the lateral part of the occipital bone and the petrous part of the temporal bones in the skull.

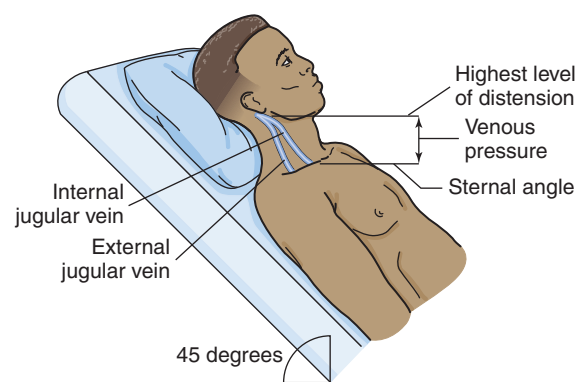
**jugular foramen syndrome**. See **Vernet's syndrome**.

**jugular fossa** /jug'yələ fos'ə/ [L, *jugulum*, neck, *fossa*, ditch], a deep depression adjacent to the interior surface of the petrosa of the temporal bone of the skull.

**jugular process** /jug'yələ pros'əs/ [L, *jugulum*, neck, *processus*, going forwards], a portion of the occipital bone that projects laterally from the squamous part to the temporal bone. On its anterior border a deep notch forms the posterior and medial boundary of the jugular foramen.

**jugular pulse** /jug'yələ pūls/ [L, *jugulum*, neck, *pulsus*, a beating], a pulsation in the jugular vein caused by conditions that inhibit diastolic filling of the right side of the heart.

**jugular venous pressure (JVP)** /jug'yələ vē'nəs presh'ə/ [L, *jugulum*, neck; L, *vena*, a blood vessel], blood pressure in the **jugular vein**, which reflects the volume and pressure of venous blood. JVP is estimated by positioning the head of a supine patient at a 45-degree angle and observing the neck veins. If the neck veins are filled only to a point a few millimetres above the clavicle at the end of exhalation, JVP is usually normal. With an elevated JVP, the neck veins may be distended as high as the angle of the jaw.



**Position of jugular veins to determine venous pressure**  
(Monahan et al, 2007)



Classification of joints		
Type of joint	Example	Description
<b>Fibrous (synarthrosis)</b> Suture Synchondrosis	Cranial sutures Joint between the epiphysis and diaphysis of long bones	No movement is permitted United by a thin layer of fibrous tissue Temporary joint in which the cartilage is replaced by bone later in life
<b>Cartilaginous (amphiarthrosis)</b> Symphysis Syndesmosis	Symphysis pubis Radius—ulna articulation	Slightly movable joint Bones are connected by a fibrocartilage disc Bones are connected by ligaments
<b>Synovial (diarthrosis)</b>  Ball and socket	  Shoulder	  Freely movable; enclosed by joint capsule, synovial membrane Widest range of motion, movement in all planes
  Hinge	  Elbow	  Motion limited to flexion and extension in a single plane
  Pivot	  Atlantoaxis	  Motion limited to rotation
  Condylloid	  Wrist between radius and carpals	  Motion in two planes at right angles to each other, but no radial rotation
  Saddle	  Thumb at carpal—metacarpal joint	  Motion in two planes at right angles to each other, but no axial rotation
  Gliding	  Intervertebral: between the articular surfaces of successive vertebrae	  Motion limited to gliding
Adapted from Seidel HM, et al: <i>Mosby's guide to physical examination</i> , ed 6, St Louis, 2006, Mosby. Illustrations from Thibodeau GA, Patton KT: <i>Anatomy &amp; physiology</i> , ed 7, St Louis, 2010, Mosby.		

**jugum** /jōō'gəm/ [L, yoke], a ridge or furrow joining two points.

**juice** /jōōs/ [L, *ius*], any fluid secreted by the tissues of animals or plants. In humans it usually refers to the secretions of the digestive glands. Kinds of juices include **gastric juice**, **intestinal juice**, and **pancreatic juice**.

**jumentous** /jōōmen'təs/ [L, *jumentum*, beast of burden], having a strong animal odour, especially that of a horse. The term is used to describe the odour of urine during certain disease conditions.

**jumping disease** /jūmping dī-zēz/ [L, *dis*, not; Fr, *aise*, ease], any of several culture-specific disorders characterised by exaggerated responses to small stimuli, muscle tics including jumping, automatic obedience even to dangerous suggestions, and sometimes coprolalia or echolalia. It is unclear whether they are neurogenic or psychogenic in origin. An example is **jumping Frenchmen of Maine syndrome**.

**jumping Frenchmen of Maine syndrome** /jūmping sin'drōm/ [Gk, *syn*, together, *dromos*, course], a form of jumping disease observed in a group of lumbermen of French-Canadian descent working in a remote area of Maine; affected individuals had exaggerated startle responses, automatic obedience, and often echolalia. It is believed to have represented a form of operant conditioning rather than a true disease. See also **jumping disease**.

**jumping gene**. See **transposon**.

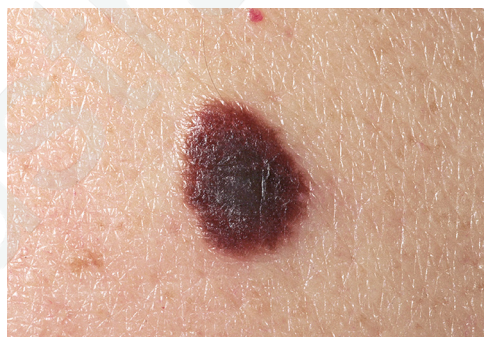
**junction** /jungk'shən/ [L, *jungere*, to join], an interface or meeting place for tissues or structures.

**junctional bigeminy** /jungk'shənəl bijem'inē/ [L, *jungere*, to join, *bis*, twice, *geminus*, twin], cardiac arrhythmia in which each sinus beat is followed by a junctional beat after a constant delay.

**junctional epithelium** /jungk'shənəl ep'i-thē'lē-əm/ [L, *jungere*, to join; Gk, *epi*, upon, *thēlē*, nipple], an area of epithelial soft tissue surrounding the abutment post of a tooth. Also called **attached epithelial cuff**, **epithelial cuff**, and **gingival cuff**.

**junctional extrasystole** /jungk'shənəl ekstrah-sistō-le/ [L, *jungere*, to join, *extra*, beyond; Gk, *systolē*, contraction], a premature heartbeat that usually arises from the junction of the atrioventricular (AV) node and the AV bundle, the primary junctional pacing site, but may also arise from within the AV bundle.

**junctional naevus** /jungk'shən nē'vəs/ [L, *jungere*, to join, *naevus*, birthmark], a hairless, flat, or slightly raised, brown mole arising from pigment cells at the epidermal–dermal junction. A junctional naevus may be found anywhere on the surface of the body. Also called **junctional melanocytic naevus**. Compare **compound naevus**, **dermal naevus**.



**Junctional naevus** (Habif, 2010)

**junctional rhythm** /jungk'shənəl rith'əm/ [L, *jungere*, to join; Gk, *rhythmos*, measured flow], a cardiac rhythm usually originating at the junction of the atrioventricular (AV) node

and the AV bundle. It may be a normal escape rhythm (rate <60/min) or an active focus (rate ≥60/min).

**junctional tachycardia** /jungk'shənəl tak'ekār'dē-ə/ [L, *jungere*, to join; Gk, *tachys*, quick, *kardia*, heart], a junctional rhythm with a rate greater than 100/min. The mechanism may be enhanced normal automaticity, abnormal automaticity, or triggered activity caused by digitalis toxicity.

**junction lines** /jungk'shən/ [L, *jungere*, to join], vertical lines that appear in the mediastinum on a posteroanterior (PA) projection radiographic image of the chest.

**junctura cartilaginea**. See **cartilaginous joint**.

**junctura fibrosa**. See **fibrous joint**.

**junctura synovialis**. See **synovial joint**.

**juncture** /jungk'chūr/ [L, a joining], a joint or union of two parts.

**jungian psychology**. See **analytical psychology**.

**Junin fever**. See **Argentine haemorrhagic fever**.

**juniper tar** /jōō'nipə/, a dark, oily liquid obtained by the destructive distillation of the wood of *Juniperus oxycedrus* trees. It is used as an antiseptic stimulant in ointments for skin disorders such as psoriasis and eczema. Also called **cade oil**.

**junk**, (slang) **heroin**.

**jurisdiction** /jōō'rəs'dik'shən/ [L, *jurisdictio*, administration of the law], 1. a geopolitical area, such as a state, in which, and limited to which, a particular set of laws and courts can exercise its powers. 2. the power and scope of a court, or a set of courts, to hear and decide matters.

**jurisprudence** /jōō'risprōō'dəns/ [L, *jus*, law, *prudencia*, knowledge], the science and philosophy of law. **Medical jurisprudence** relates to the interaction of medicine with criminal, civil, and other categories of law.

**jury**, a group of (usually 12) members that decides the facts of a case and gives a verdict, after advice on the law and a summation of both sides of the case by the judge. In most **jurisdictions**, juries are relatively uncommon in civil cases.

**justice** /justis/ [L, *justitia*, justice], 1. a principle of fair and equal treatment for all. 2. what the institution of law dispenses to those who are involved in its processes, based on the principle of fairness — that is, that all like cases and situations are treated alike. 3. principle of bioethics, which aims to ensure equity of access to and receipt of healthcare.

**justification** /justi-fī-kā'shən/, the notion that human activities that lead to exposure to radiation should be justified before they are permitted to take place, by demonstrating that they are likely to do more good than harm. If a radiological examination is medically justified then the effects of the radiation dose, though minimised as much as possible, are vastly outweighed by the diagnostic information provided by the examination.

**juvenile** /jōō'vənīl/ [L, *juvenus*, young], 1. a young person; youth; child; youngster. 2. pertaining to, characteristic of, or suitable for a young person; youthful. 3. physiologically underdeveloped or immature. 4. denoting psychological or intellectual immaturity; childish.

**juvenile alveolar rhabdomyosarcoma** /jōō'vənīl əlvē'ələ rab'dōmī'ō-särkō'mə/ [L, *juvenus*, young, *alveolus*, little hollow; Gk, *rhabdos*, rod, *mys*, muscle, *sarx*, flesh, *oma*, tumour], a rapidly growing tumour of striated muscle occurring in children and adolescents, chiefly in the extremities. The prognosis is grave.

**juvenile angiofibroma**. See **nasopharyngeal angiofibroma**.

**juvenile delinquency** /jōō'vənīl diling'kwənsē/ [L, *juvenus*, young, *delinquere*, to fail], persistent antisocial, illegal, or criminal behaviour by children or adolescents to the degree that it cannot be controlled or corrected by the parents, it endangers others in the community, and it becomes the concern of a law enforcement agency.

**juvenile delinquent** /jōō'vənīl diling'kwənt/ [L, *juvenus*, young, *delinquere*, to fail], a person who performs illegal acts

and who has not reached an age at which treatment as an adult can be accorded under the laws of the community having jurisdiction. Also called **juvenile offender** and **young offender**.

**juvenile diabetes.** See **type 1 diabetes mellitus**.

**juvenile glaucoma** /jōō'vənīl glōkō'mə, glou-/ [L, *juvenus*, young; Gk, *glaukos*, bluish-grey], increased intraocular tension in a young adult caused by developing structural defects that restrict the outflow of fluid.

**juvenile kyphosis.** See **Scheuermann's disease**.

**juvenile laryngeal respiratory papillomatosis** /jōō'vənīl larin'jē·əl rispē'rātōr'ē pap'ilōmātō'sis/ [L, *juvenus*, young; Gk, *larynx*, upper windpipe; L, *re*, again, *spirare*, to breathe, *papilla*, nipple; Gk, *oma*, tumour, *osis*, condition], multiple squamous cell tumours that develop in the larynx, usually in young children. The growths are transmitted by a papillomavirus and may be acquired from the mother. The laryngeal papillomas tend to undergo periods of remission and recurrence over a period of several years.

**juvenile myoclonic syndrome** /jōō'vənīl mī'ə-klōn'īk sin'drōm/ [L, *juvenus*, young; Gk, *mys*, muscle, *klonos*, tumult, *syn*, together, *dromos*, course], a condition in which myoclonic seizures begin to appear around the time of puberty. The myoclonic jerks are more likely to occur immediately after awakening and are often associated with sleep deprivation and photosensitivity.

**juvenile myxoedema.** See **childhood myxoedema**.

**juvenile offender.** See **juvenile delinquent**.

**juvenile-onset diabetes, juvenile onset-type diabetes.** See **type 1 diabetes mellitus**.

**juvenile rheumatoid arthritis (JRA)** /jōō'vənīl roōmah-toid ārthrī'tis/ [L, *juvenus*, young; Gk, *rheuma*, flux, *eidōs*, form, *arthron*, joint, *itis*, inflammation], also referred to as **juvenile chronic arthritis** or **juvenile arthritis**, JRA represents several forms of chronic inflammatory arthritis, usually affecting the larger joints of children younger than 16 years of age and often accompanied by systemic manifestations. As bone growth in children is dependent on the epiphyseal plates of the distal epiphyses, skeletal development may be impaired if these structures are damaged. In the systemic form of the disorder, known as **Still's disease**, there are extraarticular features including a characteristic pink evanescent rash, high fever, and cardiac involvement. Treatment includes analgesia, antiinflammatory medication, disease-modifying antirheumatic drugs, rest, physiotherapy, and hydrotherapy. See also **Still's disease**.



**Juvenile rheumatoid arthritis: deformity of the fingers**  
(Zitelli et al, 2002)

**juvenile spinal muscular atrophy** /jōō'vənīl spī'nāl mus'kyələt'at'rəfē/ [L, *juvenus*, young, *spina*, *musculus*; Gk,

*a*, without, *trophē*, nourishment], a disorder beginning in childhood in which progressive degeneration of anterior horn and medullary nerve cells leads to skeletal muscle wasting. The condition usually begins in the legs and pelvis. Also called **Wohlfart–Kugelberg–Welander disease**.

**juvenile xanthogranuloma** /jōō'vənīl zan'thō-gran'yū-lō'mā/ [L, *juvenus*, young; Gk, *xanthos*, yellow; L, *granulum*, little grain; Gk, *oma*, tumour], a skin disorder characterised by solitary or multiple yellow, red, or brown papules or nodules on the face or extensor surfaces of the arms and legs, and in some cases on the eyeball, meninges, and testes. The lesions typically appear in infancy or early childhood and usually disappear in a few years. Also called **naevoxanthoendothelioma**.



**Juvenile xanthogranuloma** (Callen et al, 2000)

**juxta-**, prefix meaning 'near': *juxtaglomerular*, *juxtangina*, *juxtaposition*.

**juxtaarticular** /juk'stə·ärtik'yələ/ [L, *juxta*, near, *articulus*, joint], pertaining to a location near a joint.

**juxtocrine** /juks'təkrin/ [L, *juxta*, near; Gk, *krinō*, to separate], describing a hormonal relationship in which the secretory cell is adjacent to an effector cell.

**juxtaglomerular** /juk'stə·glōmer'ələ/ [L, *juxta*, near, *glomerulus*, small ball], pertaining to an area near or adjacent to the afferent and efferent arterioles of the kidney glomerulus.

**juxtaglomerular apparatus** /juk'stə·glōmer'ələ ap'arat'əs, ap'arat'əs/ [L, *juxta*, near, *glomerulus*, small ball], a collection of cells located beside each renal glomerulus, consisting of a portion of the distal convoluted tubule arising from that glomerulus, segments of the afferent and efferent arterioles closest to the glomerulus, and cells lying between these structures. It is involved in the secretion of renin in response to blood pressure changes and is important in the autoregulation of certain kidney functions. Also called the **juxtaglomerular complex**.

**juxtaglomerular cells** /juk'stə·glōmer'ələ selz/ [L, *juxta*, near, *glomerulus*, small ball, *cella*, storeroom], smooth, myoepitheloid cells lining the glomerular end of the afferent arterioles in the kidney that are in opposition to the macula densa region of the early distal tubule. These cells synthesise and store renin, and release it in response to decreased renal perfusion pressure, increased sympathetic nerve stimulation of the kidneys, or decreased sodium concentration in fluid in the distal tubule.

**juxtaglomerular complex.** See **juxtaglomerular apparatus**.

**juxtamedullary** /juk'stə·med'uler'ē/ [L, *juxta*, near, *medulla*, marrow], near the border of a medulla.

**juxtaposition** /juk'stə·pəzish'ən/ [L, *juxta*, near, *positionem*], the placement of objects side by side or end to end.

**JVP**, abbreviation for **jugular venous pressure**.

**J wave.** See **Osborn wave**.