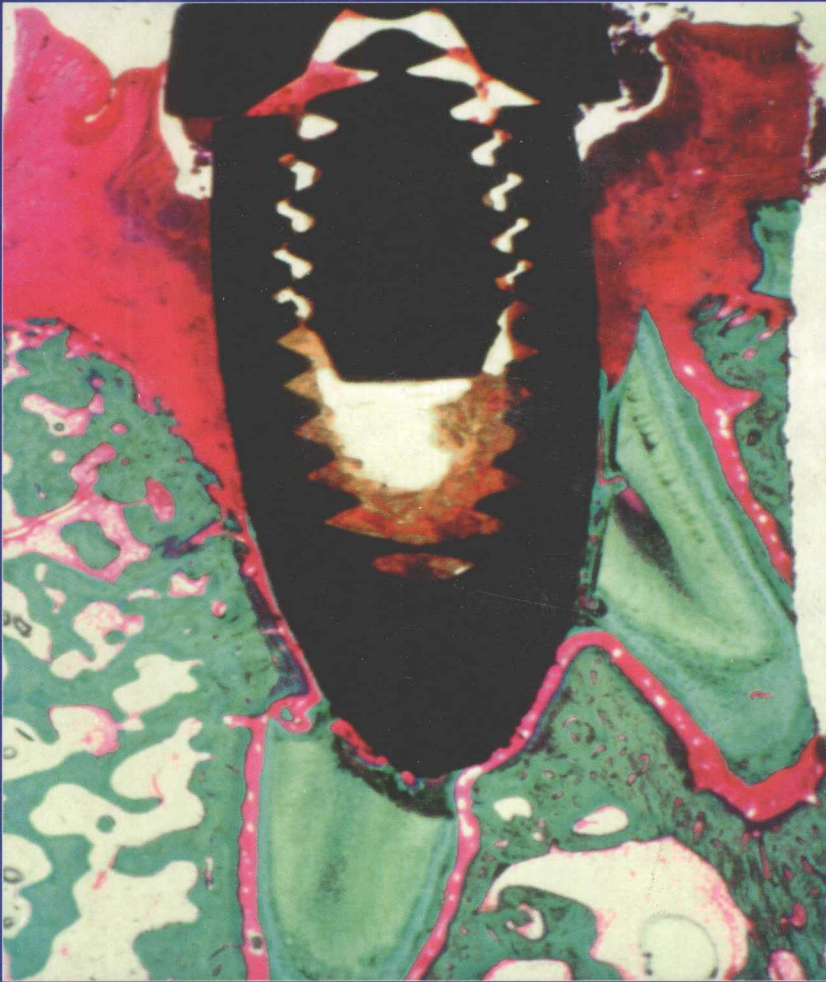


# Clinical Periodontology and Implant Dentistry

Fourth Edition



**Jan Lindhe**

Thorkild Karring • Niklaus P. Lang

Editors



**Blackwell  
Munksgaard**

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Editorial Offices:

9600 Garsington Road, Oxford OX4 2DQ, UK

*Tel:* +44 (0) 1865 776868

108 Cowley Road, Oxford OX4 1JF, UK

*Tel:* +44 (0) 1865 791100

Blackwell Publishing Inc., 350 Main Street, Malden, MA 02148-5020, USA

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*Tel:* +1 515 292 0140

Blackwell Munksgaard, 1, Rosenørns Allé, P.O. Box 227, DK-1502 Copenhagen V, Denmark

*Tel:* +45 77 33 33 33

Blackwell Publishing Asia Pty Ltd, 550 Swanston Street, Carlton, Victoria 3053, Australia

*Tel:* +61 (0)3 8359 1011

Blackwell Verlag, Kurfürstendamm 57, 10707 Berlin, Germany

*Tel:* +49 (0) 30 32 79 060

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*Tel:* +33 1 53 10 33 10

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# Foreword

It often happens that a textbook is obsolete by the time it is published. Furthermore, a book written by several authors is frequently lacking in both style and methodology.

This textbook, *Clinical Periodontology and Implant Dentistry*, is therefore an unusual and stimulating surprise to the reader. The many chapters included are all written by authors who apparently share an epistemological approach that guides the logic of research and scientific discovery. Each chapter tells the story of how different problems related to etiology, pathogenesis, treatment and prevention of different lesions in the periodontal tissues led to the formulation of hypotheses or theories that were subsequently subjected to testing.

We know that the formulation of a novel hypothesis requires fantasy and creativity and that experiments (testing) can be planned and meaningful observations can be made after an intelligent hypothesis is formulated. The authors of this book seem convinced, for logical reasons, that observations and experiments are always best performed after the formulation of hypotheses, and that “science will never grow by merely multiplying data and observations”. Experiments are performed to examine if the theories proposed were correct, close to the truth or false.

The history of periodontology – as of any scientific domain – is also and above all the history of its errors. Indeed, the errors form the walls of our base of knowledge and allow us to appreciate the closeness to the truth, once unraveled.

The reading of *Clinical Periodontology and Implant Dentistry* invites student and specialist to take a fascinating intellectual journey that in the end allows her or him to understand how knowledge in various fields of this discipline of medicine was progressed and how it should be used in the practice of dentistry. Those reading this book will not only learn what to do or not to do in diagnosing, treating and preventing periodontal pathologies, but they will never cease to undertake its activity of rational criticism and critical control, being continuously reminded of Einstein’s words that “all our knowledge remains fallible”.

Giorgio Vogel

Professor

Department of Medicine, Surgery and Dentistry

University of Milan

Italy

# Preface

Preparations for the 4th edition of *Clinical Periodontology and Implant Dentistry* started in 2001 when all senior authors of the various chapters of the current text were identified and invited to join the team of contributors. The authors were selected because of their reputations as leading researchers, clinicians or teachers in Periodontology, Prosthetic Dentistry, Implant Dentistry and associated domains. Their task was simple but demanding; within your field of expertise, find all relevant information, digest the knowledge and present to the reader a "state of the art" text that can be appreciated by (i) the student of dentistry and dental hygiene, (ii) the graduate student of Periodontology and related domains and (iii) the practicing dentist; the general practitioner and the specialist in Periodontology and/or Implant Dentistry.

I am proud to present the outcome of this collective effort as it appears in this 4th edition of *Clinical Periodontology and Implant Dentistry*.

As was the case in the 3rd edition, this textbook consists of three separate parts; *Basic Concepts*, *Clinical Concepts* and *Implant Concepts*; that together illustrate most, if not all, important aspects of contemporary Periodontology. Several chapters from the 3rd edition of this book have been thoroughly revised, some have required only modest amendment, while several chapters in each separate part are entirely new. The amendments and additions illustrate that Periodontology is continuously undergoing change and that the authors of the textbook are at the forefront of this conversion.





# Classification of Periodontal Diseases

DENIS F. KINANE AND JAN LINDHE

In 1999 the American Academy of Periodontology staged an International Workshop, the sole purpose of which was to reach a consensus on the classification of periodontal disease and conditions. The most notable changes are in the terminology of the various disease categories which reflect a better understanding of the disease presentations and their differences but also in the acceptance that adult and early-onset forms of periodontitis can occur at any age. Thus we have: adult periodontitis becoming chronic periodontitis; early-onset forms of periodontitis becoming aggressive forms of periodontitis; systemic disease forms of periodontitis; and necrotizing forms of periodontitis.

## ADULT PERIODONTITIS - CHRONIC PERIODONTITIS

The International Workshop recommended that the term "adult periodontitis" be discarded since this form of periodontal disease can occur over a wide range of ages and can be found in both the primary and secondary dentition (Consensus Report 1999). The term "chronic periodontitis" was chosen as it was considered less restrictive than the age-dependent designation of "adult periodontitis". It was agreed that chronic periodontitis could be designated as localized or generalized depending on whether less than or more than 30% of sites within the mouth were affected.

## EARLY-ONSET FORMS OF PERIODONTITIS - AGGRESSIVE PERIODONTITIS

The International Workshop recommended that the term "early-onset periodontitis" be discarded since this form of disease can occur at various ages and can persist in older adults. Thus aggressive periodontitis can be considered either localized or generalized. Thus the term "localized aggressive periodontitis" replaces the older term "localized juvenile periodontitis" or "localized early-onset periodontitis". The new

term "generalized aggressive periodontitis" replaces "generalized juvenile periodontitis" or "generalized early-onset periodontitis". The classification term "prepubertal periodontitis" has been discarded and these forms of periodontitis are described as localized or generalized aggressive periodontitis occurring prepubertally.

## SYSTEMIC DISEASE FORMS OF PERIODONTITIS

The International Workshop agreed that certain systemic conditions (such as smoking, diabetes, etc.) can modify periodontitis (chronic or aggressive) and that certain systemic conditions can cause destruction of the periodontium (which may or may not be histopathologically periodontitis), for example neutropenias or leukaemias.

## NECROTIZING FORMS OF PERIODONTITIS - NECROTIZING FORMS OF PERIODONTAL DISEASES

It was accepted by the International Workshop that "necrotizing ulcerative gingivitis" (NUG) and "necrotizing ulcerative periodontitis" (NUP) be collectively referred to as "necrotizing periodontal diseases". It was agreed that NUG and NUP were likely to be different stages of the same infection and may not be separate disease categories. Both of these diseases are associated with diminished systemic resistance to bacterial infection of periodontal tissues. A crucial difference between NUG and NUP is whether the disease is limited to the gingiva or also involves the attachment apparatus.

## REFERENCE

Consensus Report on Chronic Periodontitis (1999). *Annals of Periodontology*, 4, p. 38.

# Contributors

MARTIN ADDY

Division of Restorative Dentistry  
Department of Oral and Dental Science  
Bristol Dental Hospital and School  
UK

TOMAS ALBREKTSSON

Department of Biomaterials  
Faculty of Medicine  
The Sahlgrenska Academy at Göteborg University  
Sweden

MAURÍCIO ARAÚJO

Department of Odontology  
State University of Maringá  
Maringá  
Brazil

ROLF ATTSTRÖM

Department of Periodontology  
Centre for Oral Health Sciences  
Malmö University  
Sweden

URS BELSER

Department of Prosthetic Dentistry  
School of Dental Medicine  
University of Geneva  
Switzerland

GUNNAR BERGENHOLTZ

Department of Endodontology and Oral Diagnosis  
Faculty of Odontology  
The Sahlgrenska Academy at Göteborg University  
Sweden

TORD BERGLUNDH

Department of Periodontology  
Faculty of Odontology  
The Sahlgrenska Academy at Göteborg University  
Sweden

JEAN-PIERRE BERNARD

Department of Stomatology and Oral Surgery  
School of Dental Medicine  
University of Geneva  
Switzerland

URS BRÄGGER

Department of Periodontology and Fixed  
Prosthodontics  
School of Dental Medicine  
University of Berne  
Switzerland

DANIEL BUSER

Department of Oral Surgery and Stomatology  
School of Dental Medicine  
University of Berne  
Switzerland

GIANFRANCO CARNEVALE

Via Ridolfino Venuti 38  
Rome  
Italy

NOEL CLAFFEY

Dublin Dental School and Hospital  
Trinity College  
Dublin  
Republic of Ireland

PIERPAOLO CORTELLINI

Via C. Botta 16  
Florence  
Italy

JOSÉ ECHEVERRÍA

Department of Periodontics  
School of Dentistry  
University of Barcelona  
Spain

INGVAR ERICSSON

Department of Prosthetic Dentistry  
Faculty of Odontology  
Malmö University  
Sweden

HANS-GÖRAN GRÖNDAHL

Department of Oral and Maxillofacial Radiology  
Faculty of Odontology  
The Sahlgrenska Academy at Göteborg University  
Sweden

ANNE HAFFAJEE

Department of Periodontology  
The Forsyth Institute  
Boston, MA  
USA

CHRISTOPH H.F. HÄMMERLE

Clinic for Fixed and Removable Prosthodontics  
Centre for Dental and Oral Medicine and  
Cranio-Maxillofacial Surgery  
University of Zürich  
Switzerland

GUNNAR HASSELGREN

Division of Endodontics  
School of Dental and Oral Surgery  
Columbia University  
New York, NY  
USA

LARS HEIJL

Department of Periodontology  
Faculty of Odontology  
The Sahlgrenska Academy at Göteborg University  
Sweden

DAVID HERRERA

Facultad de Odontología  
Ciudad Universitaria, Madrid  
Spain

PALLE HOLMSTRUP

Faculty of Health Sciences  
School of Dentistry, Department of Periodontology  
University of Copenhagen  
Denmark

THORKILD KARRING

Department of Periodontology  
Royal Dental College  
Faculty of Health Sciences  
University of Aarhus  
Denmark

DENIS F. KINANE

Department of Periodontics, Endodontics and  
Dental Hygiene  
School of Dentistry  
University of Louisville  
Kentucky, KY  
USA

NIKLAUS P. LANG

Department of Periodontology and Fixed  
Prosthodontics  
School of Dental Medicine  
University of Berne  
Switzerland

ULF LEKHOLM

Department of Oral Maxillofacial Surgery  
Faculty of Odontology  
The Sahlgrenska Academy at Göteborg University  
Sweden

JAN LINDHE

Department of Periodontology  
Faculty of Odontology  
The Sahlgrenska Academy at Göteborg University  
Sweden

BRUNO G. LOOS

Department of Periodontology  
ACTA, Amsterdam  
The Netherlands

LISA MAYFIELD

Department of Periodontics and Fixed  
Prosthodontics  
School of Dental Medicine  
University of Berne  
Switzerland

ANDREA MOMBELLI

Department of Periodontology and Oral  
Pathophysiology  
University of Geneva  
Switzerland

STURE NYMAN

Deceased

RICHARD PALMER

Department of Periodontology  
Guy's, King's and St Thomas' Dental Institute  
King's College London  
UK

PANOS N. PAPAPANOU

Division of Periodontics  
School of Dental and Oral Surgery  
Columbia University  
New York, NY  
USA

DAVID W. PAQUETTE

Department of Periodontology  
School of Dentistry  
University of North Carolina  
Chapel Hill  
North Carolina, NC  
USA

ROBERTO PONTORIERO

Galleria Passarella 2  
Milan  
Italy



GIOVAN PAULO PINI PRATO  
Department of Odontology  
University of Florence  
Italy

MARC QUIRYNEN  
School of Dentistry, Oral Pathology and  
Maxillofacial Surgery  
Faculty of Medicine  
Catholic University of Leuven  
Belgium

JESPER REIBEL  
Department of Oral Pathology and Oral Medicine  
School of Dentistry  
University of Copenhagen  
Denmark

HARALD RYLANDER  
Department of Periodontology  
Faculty of Odontology  
The Sahlgrenska Academy at Göteborg University  
Sweden

GIOVANNI SALVI  
Department of Periodontology and Fixed  
Prosthodontics  
School of Dental Medicine  
University of Berne  
Switzerland

MARIANO SANZ  
Facultad de Odontología  
Ciudad Universitaria, Madrid  
Spain

MASSIMO SIMION  
Department of Periodontology and Implant  
Rehabilitation  
School of Dental Medicine  
University of Milan  
Italy

SIGMUND SOCRANSKY  
Department of Periodontology  
The Forsyth Institute  
Boston, MA  
USA

MENA SOORY  
Department of Periodontology  
Guy's, King's and St. Thomas' Dental Institute  
King's College London  
UK

MAURIZIO S. TONETTI  
Department of Periodontology  
Eastman Dental Institute  
University College, University of London  
UK

UBELE VAN DER VELDEN  
Department of Periodontology  
ACTA, Amsterdam  
The Netherlands

DANIEL VAN STEENBERGHE  
School of Dentistry, Oral Pathology and  
Maxillofacial Surgery  
Faculty of Medicine  
Catholic University of Leuven  
Belgium

ARIE J. VAN WINKELHOFF  
Department of Oral Microbiology  
ACTA  
Amsterdam  
The Netherlands

GIORGIO VOGEL  
Department of Medicine, Surgery and Dentistry  
University of Milan  
Italy

HEINER WEHRBEIN  
Poliklinik für Kieferorthopaedie  
Augustusplatz 2  
Mainz  
Germany

ANN WENNERBERG  
Department of Biomaterials  
Department of Prosthetic Dentistry/Dental Material  
Science  
Faculty of Medicine  
The Sahlgrenska Academy at Göteborg University  
Sweden

JAN L. WENNSTRÖM  
Department of Periodontology  
Faculty of Odontology  
The Sahlgrenska Academy at Göteborg University  
Sweden

JYTTE WESTERGAARD  
Panum Institutet  
School of Dentistry  
University of Copenhagen  
Denmark

RAY C. WILLIAMS  
Department of Periodontology  
School of Dentistry  
University of North Carolina  
Chapel Hill  
North Carolina, NC  
USA

BJÖRN ZACHRISSON  
Stortingsgatan 10  
Oslo  
Norway

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