Core build-up designs

Bolhuis, H.P.B.

Citation for published version (APA):
Bolhuis, H. P. B. (2004). Core build-up designs

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
# CONTENTS

## Chapter 1 General Introduction
- 1.1 Introduction 9
- 1.2 Core build-up restorations without a post 10
- 1.3 Core build-up restorations with a post
  - 1.3.1 Cast post and core restorations 12
  - 1.3.2 Core build-up restorations with prefabricated metallic posts 14
  - 1.3.3 Core build-up restorations with prefabricated fiber posts 15
  - 1.3.4 Ceramic post and core restorations 16
- 1.4 The ferrule effect and stress distribution 17
- 1.5 Luting cements 19
- 1.6 Failure of post and core restorations and the anatomy of premolars 22
- 1.7 Investigation methods in literature 23
- 1.8 Aim and outline of this study 24
- 1.9 References 26

## Chapter 2 A Comparative in vitro Study of the Fracture Resistance of Different Core Build-up Designs on Endodontically Treated Premolars
- 2.1 Abstract 39
- 2.2 Introduction 40
- 2.3 Materials and methods 41
- 2.4 Results 45
- 2.5 Discussion 47
- 2.6 Conclusions 48
- 2.7 References 48

## Chapter 3 The Influence of Fatigue Loading on the Performance of Adhesive and Non-adhesive Luting Cements for Cast Post and Core Restorations in Premolars
- 3.1 Abstract 51
- 3.2 Introduction 52
- 3.3 Materials and methods 53
- 3.4 Results 58
- 3.5 Discussion 60
- 3.6 Conclusions 62
- 3.7 References 62
CONTENTS

Chapter 4  The Influence of Fatigue Loading on Different Post and Core Build-up Systems in Premolars  
4.1 Abstract  
4.2 Introduction  
4.3 Materials and methods  
4.4 Results  
4.5 Discussion  
4.6 Conclusions  
4.7 References  

Chapter 5  The Influence of Fatigue Loading on the Quality of Cement Layer and Retention Strength of Carbon Fiber Post-Resin Composite Core Restorations  
5.1 Abstract  
5.2 Introduction  
5.3 Materials and methods  
5.4 Results  
5.5 Discussion  
5.6 Conclusions  
5.7 References  

Chapter 6  Shrinkage Stress and Bond Strength to Dentin for Compatible and Incompatible Combinations of Bonding Systems and Chemical and Light-cured Core Build-up Resin Composites  
6.1 Abstract  
6.2 Introduction  
6.3 Materials and methods  
6.4 Results  
6.5 Discussion  
6.6 Conclusions  
6.7 References  

Chapter 7  Summary and Clinical Discussion  

Chapter 8  Samenvatting en Klinische Discussie  

Appendix  

Dankwoord