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# بسم الله الرحمن الرحيم

مركز الشبكات وتكنولوجيا المعلومات

قسم التوثيق الإلكتروني



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# جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
على هذه الأقراص المدمجة قد أعدت دون أية تغييرات



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B18449

نصفه والى  
صارت  
تالغزاه

# **ASSESSMENT OF BLOOD CONTENT IN SALIVA DURING THE MIXED DENTITION STAGE**

**THESIS**

**SUBMITTED FOR PARTIAL FULFILLMENT OF  
THE REQUIREMENTS OF  
MASTER DEGREE IN PEDODONTICS**

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**2002**

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# Acknowledgement



## **Acknowledgement**

First of all I would like to extend my sincere thanks and deepest gratitude to Prof. Dr MERVAT RASHED Professor and head of Pedodontic and community dentistry department Faculty of Oral and Dental Medicine Cairo University who had tirelessly supervised my work and generously gave advice and encouragement in my research. I am indebted to her profoundly.

I owe a lot to Prof. Dr NAILA OMRAN Professor of Clinical and chemical Pathology Faculty of Medicine Cairo University. Her fine manners, profound knowledge and deep guidance set examples.

No words can satisfy and explain my deep gratitude to Prof. Dr NEVINE WALY Professor of Pedodontic and community dentistry department Faculty of Oral and Dental Medicine Cairo University. Her wise advice, supervision and follow up of the work, she was driving force behind this study, urging, advising and giving me all the help I need to make this work come to life.

My special thanks and deep gratitude to Prof. Dr HODA ABDEL GHANY Assistant Professor of Clinical Pathology Faculty of Medicine Cairo University who sacrificed her valuable time and energy to help me get on with my research.



Special thanks to Mr. MEDHAT LASHEEN Technician of Clinical Pathology Faculty of Medicine Cairo University, for his great effort in the laboratory work.

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# Introduction

## **Introduction**

The mixed dentition period is defined as the stage in which both primary and permanent teeth are found at the same time in the oral cavity. This stage usually starts at about 6 to 7 years of age, when the first permanent teeth, mainly the first molars and central incisors begin to erupt. By about 10 to 12 years of age, this stage ends, when the last primary tooth completes its physiological shedding (*Foster, 1982*).

It is generally agreed that the processes of shedding of primary teeth and eruption of permanent teeth are usually associated with some degree of gingival irritation and bleeding. Mechanical irritation to the underlying tissue by the uneven, sharp, partially resorbed roots ends of primary teeth is accompanied with some gingival enlargement, bleeding and discomfort. Moreover, mechanical trauma to the gingiva overlying the crowns of the erupting permanent teeth may provoke bleeding. The sharp incisal edges of anterior permanent teeth and the cusp tips of the posterior permanent teeth piercing through the gingiva, in the presence of mechanical trauma from the opposing teeth may contribute to further bleeding (*Kitamura et al., 1984*).

Although the presence of blood group substances has been identified normally in the saliva, bleeding which accompanies the process of shedding and eruption of teeth during the mixed

dentition stage may contribute to additional amounts of blood in saliva. Since it is well known that saliva contaminated with visible and occult blood is one of the major pathways of disease transmission, children harboring communicable infectious diseases during mixed dentition stage may represent a potential source of infection to the dentist and to other patients. This in turn has lead to the necessity of developing a cheap, easy and reliable method of screening to detect occult blood in saliva using occult blood test in order to ensure proper disinfection and sterilization (*Kitamura et al., 1984*).

# Aim of the work