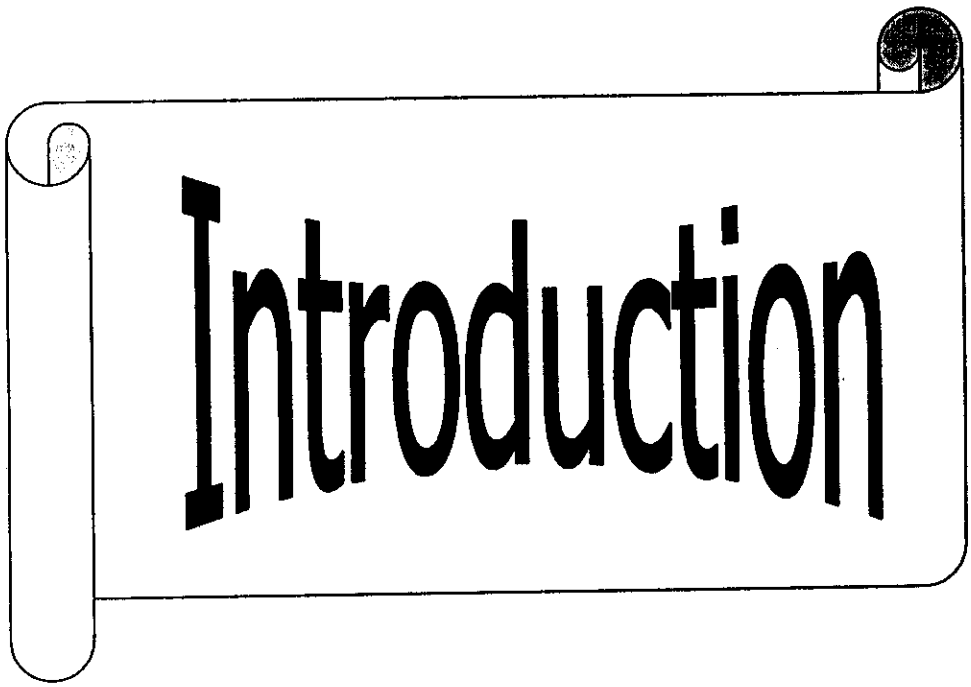
Introduction

# INTRODUCTION

The hip joint (also known as the coxo-femoral Joint) is one of the most important joints of the body being physiologically adapted to its complex and unique function. While retaining the stresses of support of body weight, it allows a wide range of motion in three perpendicular planes with a great degree of stability. This is only possible through its unique structure and function[48].

Biomechanics is that branch of science concerned with understanding the interrelationship of structure and function of living beings with respect to kinematics and kinetics of motion[1].

It is beyond that bone and cartilage are sensitive structures. Their quantitative and qualitative components depend not only on hormones, enzymes, vitamins, minerals and protein, but also on the stress put upon them when functioning [9].

Thus it is evident that in order to treat pathologic conditions of the hip joint, it is necessary to understand the physiological stresses to which the joint is subjected, and to have knowledge of the effects of such load bearing upon living tissues that make up the joint [71].

This essay will attempt to delineate the biomechanics of the normal hip with special reference to the loads and stresses the normal hip subjected to and biomechanics in total hip arthroplasty.