

# Thumbs sign in obesity: You do not need to check the weigh, instead watch your thumbs

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## Abstract

Obesity has been one of the curses of the modern world. The industrialization and the westernization has made our life easier, no doubts regarding that but in some ways it has made us stick to our chairs. We do not exercise and this has made matters worse. More and more number of people is diagnosed with so called rich man's disease like diabetes, cancer and hypertension. This was more found in the Western world. In the past century this was more found in the developed nations but slowly but surely has spread its tentacles towards the east. The problem is none of them wants to accept that they weigh more than what they should have ideally weighed. The phenomenon is growing in India and right now the scenario in detecting is only a tip of iceberg. That is the people who know that they are obese represent only a part of the population and many of them do not know that such conditions exist. What if a small, but sure way which is easy, to diagnose with great precision is already there. This is where the functional Anatomy knowledge kicks in to find a easy solution to diagnose the obesity. This study puts in an effort to find whether the rotation of the thumb is an indicator of the obesity or not.

**Key Words:** Obesity, Thumbs Sign, Cross-sectional, Rotation.

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## INTRODUCTION

Obesity is one of the major causes of the morbidity and mortality around the world.<sup>1,2,3</sup> Obesity is directly linked to diabetes as suggested by many authors but vice versa can also occur.<sup>4,5</sup> Weight loss has been directly linked to less likelihood of the development of the seriousness of the disease.<sup>6</sup> Obesity has been one of the curses of the modern world. The industrialization and the westernization has made our life easier, no doubts regarding that but in some ways it has made us stick to our chairs. We do not exercise and this has made matters worse. More and more number of people is diagnosed

with so called rich man's disease like diabetes, cancer and hypertension. This was more found in the Western world. In the past century this was more found in the developed nations but slowly but surely has spread its tentacles towards the east. The problem is none of them wants to accept that they weigh more than what they should have ideally weighed. The phenomenon is growing in India and right now the scenario in detecting is only a tip of iceberg. That is the people who know that they are obese represent only a part of the population and many of them do not know that such conditions exist. Millions of people across the planet die of the complications of the diabetes and Hypertension that can be controlled by controlling the obesity.<sup>7</sup> In India where the Health sector has already been burdened these will contribute to the rising concerns in terms of cost and manpower.<sup>8,9</sup> In the last two decades the path followed by the increase disease is rather linear. The people who know that they are obese represent only a part of the population and many of them do not know that such conditions exist. What if a small, but sure way which is easy, to diagnose with great precision is already there. This is where the functional Anatomy knowledge kicks in to find a easy solution to diagnose the obesity.

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This study puts in an effort to find whether the rotation of the thumb is an indicator of the obesity or not.

### AIMS AND OBJECTIVES

To study the position of the thumb in people who belong to different BMI.

### MATERIALS AND METHODS

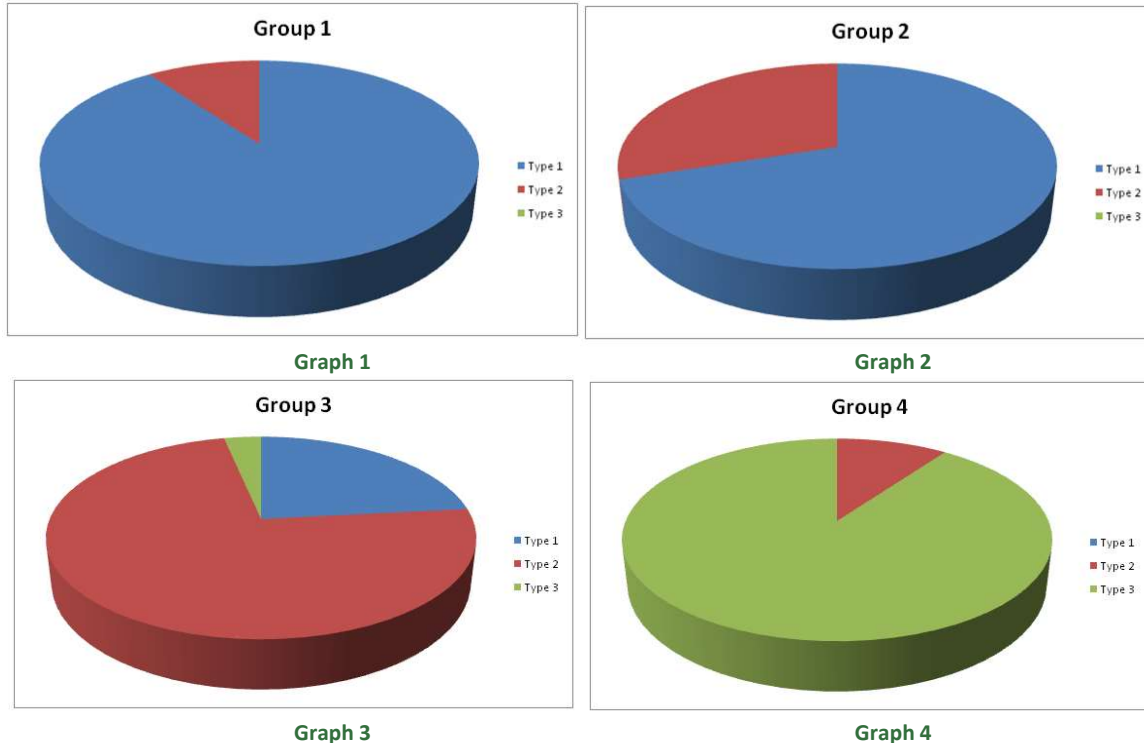
This study was done in the Department of Anatomy, in Kanachur Institute of Medical Sciences, Deralakatte, Mangalore.

This study was done from May 2018 to Dec 2018. One hundred twenty students and faculty were systematically randomized and divided into four groups. The first group included students and staff in whom the BMI was less than 18.5 and were underweight. The second group was normal and the BMI was in the range of 18.5 to 25. The third group consisted of people who were overweight and their BMI was in the range of 25 to 30 and the last group had BMI more than 30. The students and faculty were asked to stand normally and their arms hanging by the side of the body freely. The nails of the thumb were observed and divided into three types.



**A:** The nails pointed straight towards the observer; **B:** The nails pointed in between their body and the observer; **C:** The nails pointed towards the body medially. (90° to the observer)

### RESULTS



**Graph 1:** BMI students and staff in whom the BMI was less than 18.5; **Group 2:** The second group was normal and the BMI was in the range of 18.5 to 25; **Graph 3:** The third group consisted of people who were overweight and their BMI was in the range of 25 to 30; **Graph 4:** last group had BMI more than 30.

## DISCUSSION

Obesity has been a problem with the developing world. More and more comforts of life has indeed caused this great problem. It is said that sitting is the new smoking. In better words stagnant life has indeed caused more problems than the total fatality of the great wars. Anatomically there is a destined pattern of rotation of the arm that can be observed as there is more and more deposition of the axillary fat thus contributing to the rotation of the arm. This can be observed by the placement of the nails of the thumb. In our study the Group 1 had nails placed facing the observer. In group 2 also the type one was observed in majority of the people and as the weight increased the nails were observed to divert towards the median line of the observant. This is simple anatomical observation that can be of great help to diagnose or observe the obesity. The greatest limitation of the study was not to be able to demonstrate how much the deviation of the nails in turns of a unit change in the weight could not be demonstrated. Better instruments and better ways of doing so can make wonders to this study.

## CONCLUSION

Simple Anatomical observations can be used as a useful tool in the field of Medicine. This study puts in a great effort to demonstrate one of many that can be observed and demonstrated.

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