#### **Research Article**

# How does urine pH effect the tooth decay?

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# Abstract

The basic aim of the present study was to relate tooth decay with the pH of the urine. pH is very important aspect which affects and depends upon the urine specificity. The glomerulus is a necessary part in the structure of kidney. The glomerulus is involved in the filtration of blood, which is involved in acidification with the help of kidneys. A cavity or hole is formed within the tooth and it can leads towards tooth decay. Cavity in its structure is so small when it is at its starting point but with the passage of time cavity becomes large in between of the teeth and it can be a main reason to the complex diseases. A total of 100 students get participated in this study from Bahauddin Zakariya University Multan, Pakistan. In this subjects went into the lab with their urine samples taking in the urine collection bag. In this a strip is used to find the values pH. Strip is placed in the urine collection bag for a minute. Then we noted the different values of different subjects. We designed a research project based upon the results that depend upon either there was any relation among tooth decay and pH. The aim of the project was either there is any relation among urine pH and tooth decay.

# Introduction

pH is very important aspect which affects and depends upon the urine specificity. The glomerulus is a necessary part in the structure of kidney. The glomerulus is involved in the filtration of blood, which is involved in acidification with the help of kidneys. The pH of urine that is to be considered as normal is ranging from 7.4-6. According to an individual's acid-base condition, the pH of urine is 4.5 to 8. A normal pH range of urine is 7. If the pH is higher than 7, then it is basic. If the pH is lower than 7, then it is acidic. At 6 pH, the normal sample tests of urine is being taken. The lower level of sample of urine leads to a condition which is known as kidney stones [1-3]. The higher level of sample of urine means it is an alkaline. It leads to many disorders of kidneys like kidney stones, urinary tract infection and vice versa. Our blood contains uric acid to which our kidneys took out from blood and then it leaves the body by making more concentration of the uric acid.

A cavity or hole is formed within the tooth and it can leads towards tooth decay. Cavity in its structure is so small when it is at its starting point but with the passage of time cavity becomes large in between of the teeth and it can be a main reason to the complex diseases. Main and common reason of tooth decay, use of the food that have a too much amount of sugary material, carbohydrates, proteins and starch. The important role that causes the cavity formation, are the bacteria that destroy the function of the teeth and these structures [4].

The basic aim of the present study was to relate the tooth decay with the pH of the urine.

# Material and methods

A total of 100 students get participated in this study from Bahauddin Zakariya University Multan, Pakistan.

#### Methods of measuring urine pH

Subjects went into lab with their urine samples that were taking in the urine collection bag. In this procedure, a strip is used to find the pH of urine that tells it is acidic or basic. Strip is placed in the urine collection bag for a minute. Then we noted either urine is acidic or basic of different subjects that had tooth decay or not.

#### **Project designing**

We designed a research project based upon the results that were obtained from the different individuals [5-7]. The aim of the project was to find out either there is any relation among tooth decay and urine pH.

#### Statistical analysis

In statistical analysis *t*-test was applied to get the results.

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# Results

The results collected were in case of the males shown in table 1. The values were non-significant. Males that had tooth decay the value were  $7 \pm 0.760$  and that had no tooth decay were  $6 \pm 6.61$  and the p - value for them were 0.07. In case of females had tooth decay values were  $6.15 \pm 0.64$  and that had no tooth decay the values were  $7 \pm 6.244$  and the p - value were 0.57. All these values were non-significant. These all values showed that there were no relation of urine pH with tooth decay. The value that were considered as significant were 0.01.

Table 1: Relation of tooth decay with urine pH.			
Gender	Have tooth decay	Have no tooth decay	p - value
Males	7 ± 0.760	6 ± 6.61	0.07
Females	6.15 ± 0.64	7 ± 6.244	0.57
o < 0.01*		11	

# Discussion

pH is very important aspect which affects and depends upon the urine specificity. The glomerulus is a necessary part in the structure of kidney. The glomerulus is involved in the filtration of blood, which is involved in acidification with the help of kidneys. A cavity or hole is formed within the tooth and it can leads towards tooth decay. Cavity in its structure is so small when it is at its starting point but with the passage of time cavity becomes large in between of the teeth and it can be a main reason to the complex diseases. The present study showed that there is no relation among the tooth decay and urine pH.

# Conclusion

It was concluded that there was no any kind of relation among urine pH and tooth decay. The value were nonsignificant.

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