

# AMOUNT OF VITAMIN C IN REGULAR BEVERAGES



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## INTRODUCTION

Vitamin C, which different drinks have, is good for the growth and development of our body. This is used to produce an important protein for the skin, tendons, ligaments and blood vessels. It helps in wound healing and iron absorption. In addition, it has antioxidant properties that slow down free radical damage related to aging.

The excess amount of vitamin C is released in the urine and the body only stores a small reserve. Therefore, it must be ingested frequently to avoid its scarcity. Its deficiency produces the disease called scurvy.

Among its properties, it stands out that it is water-soluble, because it is common to find it in refreshing drinks of regular consumption, so it is interesting to know the real amount of vitamin C present in this so that the consumer is aware of the real amount of vitamin C that is ingested when consuming them, as it is not always indicated on the labeling. In addition, a vitamin C supplement can help us have shorter and somewhat milder colds.

## OBJECTIVES

- The main objective of this project is to know the amount of vitamin C in some of the most consumed beverages in our society.
- The selected drinks are available to us in any supermarket and are: lemon juice, pineapple juice, pepsi, aquarius, orange fanta and nestea.

## RESULTS

### Pineapple juice



Picture 1

### Orange Fanta



Picture 2

### Aquarius



Picture 3

### Nestea



Picture 4

### Pepsi



Picture 5

Pictures 1, 2, 3, 4 and 5. Color shown by the different drink samples.

Vitamin C reduces methylene blue and makes it transparent, so the samples with the highest amount of vitamin C are those with the least blue color. For the comparison of the shade of blue we have taken as reference the samples of natural lemon juice.

DRINKS	DETERMINATION OF VITAMIN C
Pineapple juice	+++
Aquarius	++
Pepsi	+
Orange fanta	+++
Nestea	+
Natural lemon juice	++

Table 1: Qualitative determination of vitamin C.

+++ = Large amount of vitamin C.  
 ++ = Medium amount of vitamin C.  
 + = Low amount of vitamin C.

As we can see from the data analysis, drinks like pineapple juice and orange fanta are rich in vitamin C, while carbonated and sugary drinks like nestea and Pepsi are low in vitamin C.

### Natural lemon juice



Picture 6

## MATERIALS AND METHODS

- ❑ To carry out this experiment we have used a tetrabrick of pineapple juice, a can of aquarius, orange fanta and nestea; a lemon, a beaker, methylene blue, pipettes and test tubes.
- ❑ First we squeeze the lemon into the beaker. Once squeezed, with a pipette we take 5 mL of lemon juice and pour it into a test tube, this action is repeated in three test tubes with each drink.
- ❑ In each of the drink samples we introduced a drop of methylene blue. In this way we can compare the color of the different drinks with a control vitamin C sample obtained by squeezing a lemon.



## CONCLUSIONS

- With this research, we have seen that drinks such as pineapple juice and orange fanta have more vitamin C than natural lemon juice.
- The drinks with the most vitamin C are pineapple juice and orange fanta and therefore the most appropriate to supplement this vitamin in our diet.
- Drinks with less vitamin C are pepsi and nestea.

## ACKNOWLEDGMENTS

- To the coordinating tutor IES Elena León.
- To the teacher M<sup>a</sup> Ángeles Gutiérrez
- To the I+D+i Department
- To the project Fidiciencia
- To the Ministry of Education
- To IES Fidiana.