

# Got RAW Milk?

What are the effects of raw vs. pasteurized milk on growth and fertility in a colony of mice?

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## INTRODUCTION

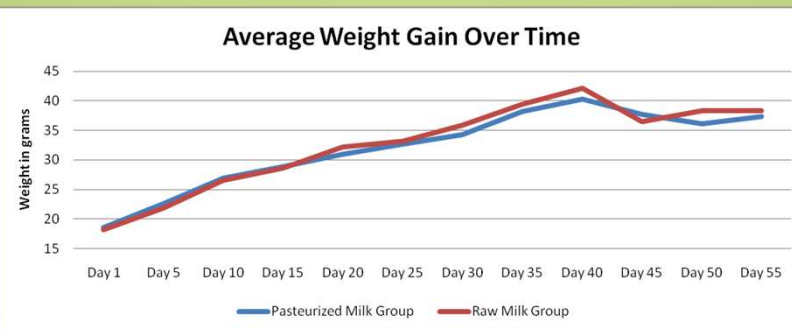
Is the nutritive value of milk compromised in pasteurization? A growing interest in raw milk has raised questions about the health benefits of consuming raw milk over pasteurized milk. Milk is a complex fluid that contains enzymes, probiotics, whey proteins, and many other components that, when pasteurized, become altered or damaged. Studies of milk raw consumption have supported health benefit claims such as reduced incidences of: asthma, atopic disease, allergies, digestive disorders, and more.

## PURPOSE

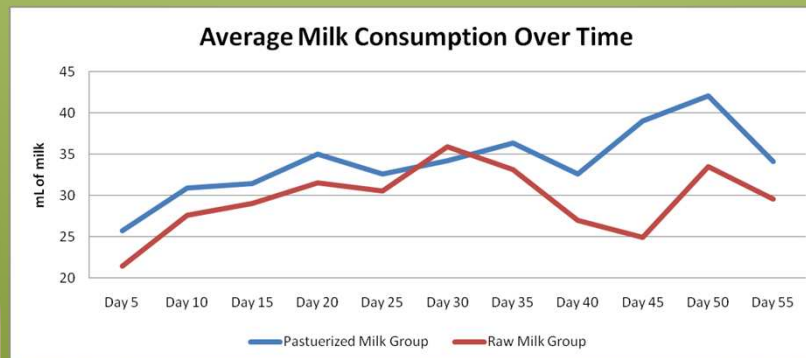
This study was designed to evaluate whether raw milk consumption has better outcomes for growth and fertility rates in mice compared to pasteurized milk consumption.

## METHODS

- 18 weanling mice grouped into breeding trios
  - 9 raw milk
  - 9 pasteurized milk
- All milk was whole, organic milk
- Fed every 4 hours between 7 am and 11 pm for 55 days
- Milk consumption was tracked at each feeding
- Unlimited water and timothy hay
- The Institutional Animal Care and Use Committee approved this study.



**Figure 1.** Mice were weighed blindly every 5 days in each group; weights were averaged.



**Figure 2.** Milk consumption was measured daily by measuring milk provided and milk consumed. Average consumption was tracked every 5 days.

## RESULTS

- No statistical difference in weight gain.  
Two sample T-test: P-value = 0.904
- Statistical difference in consumption.  
Two sample T-test: P-value = 0.021
- No statistical difference comparing consumption to growth.  
Paired T-test: P-value = 0.056



## CONCLUSION

The raw milk group trended towards greater growth but consumed less. There was no statistical difference between the groups with regard to birth rates or pup mortality rates. In future studies:

- Mice weights will be tracked individually to allow for more comprehensive data analysis.
- Raw milk fat content will be monitored regularly for tracking variability.
- An appropriate supplement will be provided in addition to the milk to allow for a longer study period.

## ACKNOWLEDGEMENTS

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- "Farmer Joe"