## The Physics of Fat

by

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Based on an Ocham's Razor program by Rubin Meerman If you loose weight, say, 1 Kgm, where does it go?

### Meerman asked

Doctors

Health practitioners

Fitness Trainers

In all he asked 150 people

## They answered:

- Energy
- **Poo**

Muscle

Only three got it right!!!!

## Energy

Einstein provided the formula

• E = mc^2

- 1 Kgm is equivalent to 8.9876 X 10^16 Joules
- Approximately 1,426 Hiroshima bombs !!!!

## Poo and Muscle

 Both answers show a total misunderstanding of bodily functions

So where does it go?

## And the correct answer is

 85% is breathed out as Carbon Dioxide

The rest as water

## The Equation of Fat

 $C_{55}H_{104}O_6 + 78O_2 \longrightarrow$ 

## $55CO_2 + 52H_2O$

# We can do some calculations....

#### So

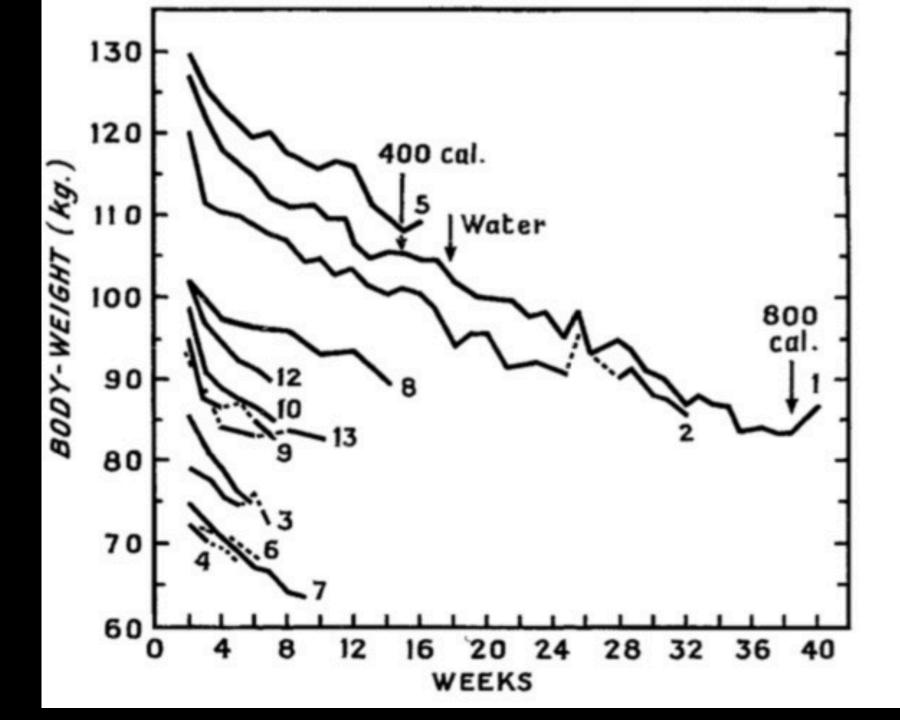
 We loose 9 mgms of carbon per breath

- Assuming 16 breaths per minute
- That's 144 mgms per minute



- 8.64 gms per hour
- 207 gms per day
- 1.45 Kgm per week
- Add 15% for the water ie. 1.7Kgm

Graph of the weight loss against time for people on hunger strike



The young football team trapped in a Thailand cave for 18 days each, on average, lost 2 Kgms.

## The take home message

- You lose about 1.7 Kgms per week
  without even trying
- If you wish to weigh less
- Keep breathing
- &
- Eat less

The End