



Fried Whole Egg Hydrolysate Reduces High Blood Pressure

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BACKGROUND

- Hypertension affects about 30% of Canadian adults and over 53% for population aged 60-79. Hypertension is the major risk factor for cardiovascular disease, the leading cause of death worldwide.
- Consumption of table eggs had experienced a major decline due to the controversial perception about cholesterol and associated cardiovascular disease.
- In our previous study we have shown that stimulated gastrointestinal digestion of **Fried Whole Egg (FWE) hydrolysate** could produce small and potent anti-hypertensive peptides.

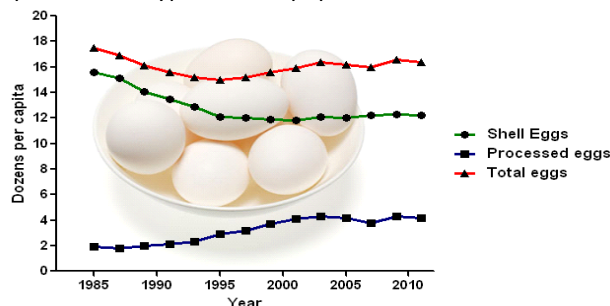


Figure 1: Per capita consumption of egg of last two decades in Canada (Source: Poultry Marketplace; agr.gc.ca)

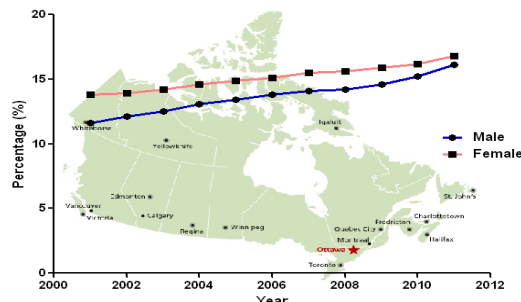
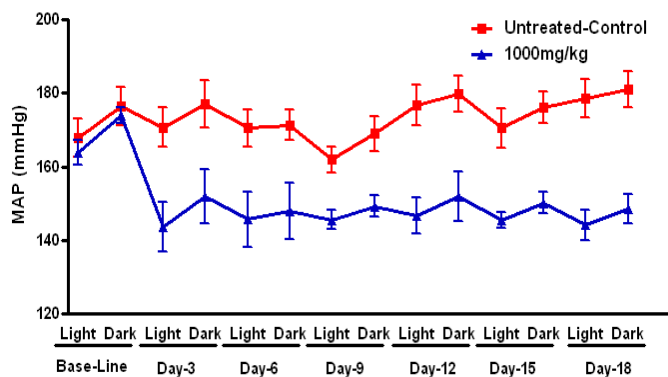
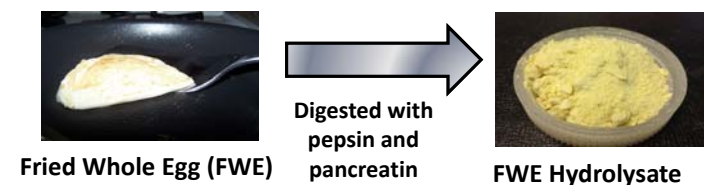


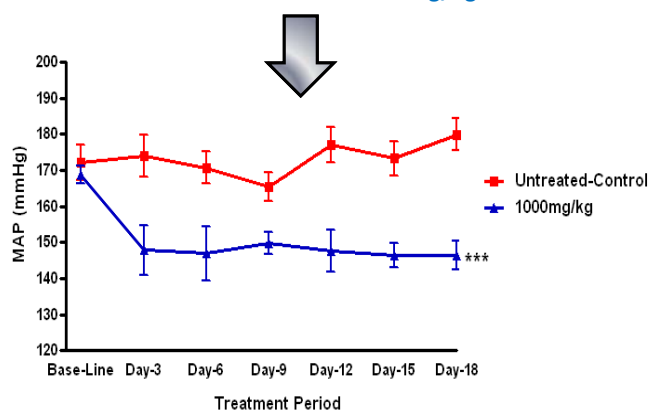
Figure 2: Percentage diagnosed with high blood pressure, by sex, household population aged 20 or older, Canada, 2001 to 2011 (Source: Statistics Canada)

PURPOSE: The objective of the present study was to evaluate the *in-vivo* blood pressure lowering or antihypertensive effect of the FWE hydrolysate on adult male spontaneously hypertensive rats (SHR).

APPROACH AND FINDINGS



Spontaneously hypertensive Rats



SIGNIFICANCE OF RESULTS

- Present study demonstrated that fried whole egg (FWE) hydrolysate could significantly decrease the blood pressure in SHR animals.
- Findings from this study might lend support to the use of egg as a functional food with potential therapeutic benefit in the prevention and management of hypertension.
- Results from this study would diversify the use of eggs and facilitate long-term growth of the egg industry.

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