



DIABETES AND ANTIOXIDANTS C & E: NARRATIVES OF RISK

How does the precautionary principle inform and apply to food studies and promote one's health and well being?

Introduction

Antioxidants are a common food additive used to prolong shelf-life. Vitamins and minerals are necessary for human health, but at the same time questions of toxicology are raised when consumption levels increase (Desphande 1996). Currently, diabetic and antioxidant researchers debate the safety of antioxidants C and E for diabetics. Researchers have documented lower antioxidant efficient pathways in diabetics (Rosen 2000). Though how doctors, patients, and healthcare practitioners should respond to the lower antioxidant efficient pathways is not clear. I argue the precautionary principle applies to the consumption of antioxidants C and E for diabetics.

The Precautionary Principle

The theory of the precautionary principle is necessary when health and toxicological studies are inconclusive for antioxidant consumption. The precautionary principle states that if an activity raises threats of harm to either human health or species and their habitat, precautionary measures should take effect if scientific controversy exists (Hanekamp 2006). Today risks transverse national boundaries, separating risks from time and space (Beck 1992). Significant uncertainty exists for both the risks and benefits of antioxidants for diabetic patients.



<http://media.trb.com/media/photo/2011-10/65234587.jpg>

Focused Question

What accounts for the varying perspectives on antioxidants incorporated into diets for diabetes patients?



<http://www.foodinsight.org/sites/default/files/field/image/antiox.jpg>

Methodology

Interviews were conducted with doctors who currently research antioxidants or diabetes. The interviews were transcribed and analyzed using thematic analysis (Riessman 2008). Then, the interviews connected the experts' interviews to a larger theoretical body of knowledge through the six commonly used narrative modes: regressive, stable, progressive, restitution, quest, and chaos (Holloway 2005 & Frank 2013).

Selected References

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Holloway, Immy. 2005. *Qualitative research in health care*. New York: McGraw-Hill International.
Riessman, Catherine Kohler. 2008. *Narrative methods for the human sciences*. New York: Sage Publications.
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Results	Varying Perspectives of Antioxidant Research Influenced by	Narrative Type	The Precautionary Principle
Dr. Alexander Michels vitamin C researcher at Oregon State University in Corvallis, OR	Marketing, experiment conditions, misinterpretations of studies, differences of natural vs. synthetic derivatives	<u>Progression</u> (advance in plot) & <u>Regression</u> (decline through time) "As we have progressed we have realized there is no one-size-fits-all protocol" "We have to go back to the basics"	"Unless it is tested, you can't say anything about it. We have no data on this [vitamin C derivative], until someone does a study and says this is better than that."
Dr. Joshua Neumiller pharmacist, diabetes educator, and professor at Washington State University in Spokane, WA	Difficulties quantifying vitamin C and E in the body & how consumption is measured, lack of funding and large heterogeneity in populations studied	<u>Stability</u> (steady plot) & small element of <u>Progression</u> "There has been hope for a long time that supplementation would decrease the amount of oxidative damage"	"Precaution is definitely warranted with these products the whole issue is the 'poison is in the dose.'"
Dr. Robert Stanton practicing doctor and researcher at Joslin Diabetes Center, Boston, MA	The role of the media, association of naturalness, numerous types of studies targeting different mechanisms	<u>Stability & Quest</u> (embraces novelty and the unknown) "we are all trying to get to is the point where we have individualized medicine for each of us"	"And I generally advise people not to take super high doses; I think there is a lot of evidence that shows a lot of something is not better than a little of something."

Conclusion

The way in which one tells a story provides a perspective and a morality in the narrative. The interviewees all discussed different barriers to antioxidant research which influences perspectives on antioxidants, and in doing so each interviewee embodies a different narrative type. However, all echoed a sense of precaution. The precautionary principle applies to antioxidants C and E, as specific benefits are unknown and only beginning to be studied in conjunction with certain genes, proteins, and metabolites of diabetics. In addition, numerous risks are associated with antioxidant consumption such as reduction in blood sugar and increase in stroke and mortality, though uncertainty exists as to the extent of these risks. To abide by the precautionary principle is a rational choice.

DIRECTIONS: As a dietary supplement of the listed nutrients take one tablet daily.

Amount Per Serving	% Daily Value*
Vitamin A (Beta Carotene 6mg)	10,000 IU 200%
Vitamin E (di-alpha Tocopheryl Acetate)	100 IU 333%
Vitamin C (Ascorbic Acid)	200mg 333%

* Percent Daily Values based in 2,000 calorie diet.

OTHER INGREDIENTS: Dicalcium Phosphate, Cellulose, Food Glaze, Magnesium Stearate, Silica

http://www.dietcenter.com/Content/images/products/Antioxidant_Formula_Nutrition_Facts.jpg