



# *Hypothesis Testing*

## *Berry Polyphenols*

### *Are Not Antioxidants*

No. 1



Acai (*Euterpe oleracea* Mart.), a rich source of polyphenols.  
But do we need them?

[follow the [Wikipedia](#) links]

# *Hypothesis testing*

From an early stage of training, scientists are taught to formulate and test **hypotheses**.

The "formulating" part occurs by pulling together all previous scientific knowledge about a topic to develop an experiment that can be tested and observed repeatedly in the laboratory, possibly leading to creation of a **scientific fact**.

Taught to expect negative results, the young scientist is trained to pose the hypothesis in words as a negative outcome:

*"my experiment will test if x increases,  
but the expected result is that it will not"*

Called a **null hypothesis**, this is the start-line of a series of experiments which, if able to reject the null hypothesis, usually creates excitement and stimulates another series of experiments with a new null hypothesis.

## *Hypothesis*

### **Berry Polyphenols Are Not Important Antioxidants**

Apologies, everyone.

Due to a server malfunction, the original article and its backup were overwritten.

The major points were

- berry polyphenols are *not proven to have antioxidant roles* in the human body
- they *act more like hormones* than they do as antioxidants
- they modify the activity of enzymes, receptor proteins and genes, fine-tuning on and off signals
- consequently, they are *required by the body only in small amounts*, dismissing the message of superfruit product marketers that "having more antioxidants means a better product"

Read these research abstracts

- **Regulation of cellular signals from nutritional molecules: a specific role for phytochemicals, beyond antioxidant activity**

*...molecules having assumed antioxidant functions serve roles independent of such capacity, interacting with cell mechanisms at different levels, such as affecting enzymes, binding to membrane receptors as either a specific stimulant or a mimic. Inducing or signaling effects may occur at concentrations much lower than that required thought to be effective for antioxidant activity...*

- **Natural dietary anti-cancer compounds: signaling mechanisms in protection of**

normal cells versus toxicity against tumor cells

- Cancer prevention and therapy: dietary polyphenols and signaling pathways

## *ARCHIVES* [\(click!\)](#)

*Pass this information on to a friend...*

Suggest a visit to the [Berry Doctor Sign-in Page!](#)

Dr. Paul  
The Berry Doctor

contact [The Berry Doctor](#)

Want to reprint an article? I have a wide variety of articles on berry nutrition and food antioxidants you can consider for your website or newsletter. I'm sure there's a perfect fit for you! [Please email me](#) and I'll be happy to give you some choices and the attribution line.

Privacy policy: I do not rent, sell, trade or share your email address with anyone, ever.

To change your email address: send a note with the new address to [The Berry Doctor!](#)

To unsubscribe: Click once on the "unsubscribe" link at the end of the email page you receive.

The fine print: This newsletter is Copyright© 2006-8 by The Berry Doctor

---