Bioactive compounds and functional properties of
*Ginkgo Biloba* and *Cola* extracts

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**Introduction**

Consumption of a diet rich in antioxidant active polyphenol compounds has been linked with beneficial health impacts and preventive effects toward chronic diseases. *Ginkgo biloba* is a medicinal plant widely used by the population and has been employed in the treatment of various diseases especially for its benefits in neurodegenerative disorders and vascular microcirculation. The complex action of *Ginkgo biloba* may also be related to his potent antioxidant properties by counteracting oxidative stress related disorders. *Cola* nuts are used in ethno-medicine as stimulants and for various health disorders. Both extracts from *Ginkgo biloba* and *Cola* are used as functional dietary ingredients in various commercially distributed food supplements.

**Materials and Methods**

The objective of this study was to quantify the total polyphenol compounds and to evaluate the antioxidant and radical scavenging properties of polyphenol-enriched extracts from *Ginkgo biloba* and *Cola*.

- Dried and grounded samples of *Ginkgo biloba* and *Cola* were extracted with 50% aqueous methanol.
- The content of total polyphenols was analyzed according to the Folin-Ciocalteu method and expressed as gallic acid equivalents (mg GAE/g).
- The radical scavenging capacity was determined with the DPPH* radical scavenging method in terms of their Trolox Equivalents TE (mg Trolox/g).

**Results and Discussion**

- Significant high amounts of total polyphenols could be observed in the *Ginkgo biloba* extract compared to the *Cola* extract.
- Correlating with the total polyphenol content high antioxidant and radical scavenging activity was observed in *Ginkgo biloba* extracts according to high TE values.
- *Cola* extracts showed relatively low but still detectable antioxidant activity.

**Conclusion**

According to this investigation *Ginkgo biloba* extracts showed remarkable high antioxidant activity and radical scavenging capacity which is assumed to be an important and basic factor in the complex beneficial health impact.

*Ginkgo biloba* extracts can be regarded as functional dietary supplement in health promoting nutrition. An application as ingredient for functional food seems to be worth considering.