

New study proves Rooibos' antioxidant potency in Humans

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A collaborative study by scientists at four international research facilities has found the first clinical evidence that drinking rooibos tea significantly increases the antioxidant capacity in human blood, thereby boosting the body's natural defences. The researchers in Rome and Glasgow found that the antioxidant capacity in the blood of 15 healthy volunteers peaked one hour after drinking 500ml ready-to-drink rooibos tea. Both traditional (fermented) and green (unfermented) rooibos tea had a significant effect.

On the basis of the results of our study, we conclude that Rooibos tea is able to deliver antioxidant ingredients to the body, thereby stimulating the body's internal redox network," says Professor Mauro Serafini, leader of this research project and Head of the Antioxidant Research Laboratory at INRAN, a nutrition research institute in Rome, Italy. "It is highly possible that, once absorbed in the circulatory stream, the unique ingredients of Rooibos may display other biological activities in the human body. That is why we are planning further intervention studies in humans to investigate the effect of Rooibos tea on the body's strategy of defence to counteract the development of heart disease.

"After an hour, the plasma antioxidant levels start to drop and that is why we recommend drinking up to six cups of rooibos spaced throughout the day for a sustained health benefit," explains Professor Jeanine Marnewick from the Cape Peninsula University of Technology. She led a recent study that showed the beneficial effect of drinking six cups of rooibos a day to promote heart health. Numerous studies over the past few decades have helped scientists to understand the complex and unique blend of antioxidants found in rooibos. They have also proved that the active compounds in rooibos are bioavailable and are metabolised (converted) in the body. The significance of the latest study is that it provides the first direct evidence that rooibos boosts antioxidant levels in the blood of healthy humans.

"This new research proves that the compounds in rooibos are potent enough to have a measurable effect on the antioxidant capacity of the blood," says Professor Lizette Joubert, one of South Africa's leading rooibos researchers, working on the quality and chemical composition of rooibos at South Africa's Agricultural Research Council. The most active antioxidant in rooibos – aspalathin – is unique to the plant species *Aspalathus linearis*. This fynbos plant thrives in the Western Cape's Cedarberg region where it is commercially cultivated and wild-harvested for the production of rooibos tea. "This study underlines the value of rooibos as a widely available and affordable source of dietary antioxidants," comments Mientjie Mouton, chair of the Product Research Committee of the South African Rooibos Council. "It is very encouraging that leading research institutions around the world are working on rooibos and producing such promising results. There is also a great deal of work being done by local rooibos researchers and we will continue to invest in this research." The South African Rooibos Council invests some R1 million a year to fund research into rooibos' health properties. This year the Council is supporting research projects at several local universities and science councils focusing on how rooibos can counter cancer and stress, as well as the link between rooibos and exercise. A project on rooibos and obesity has been approved for funding in 2011. Summaries of the most recent rooibos studies published in top peer-reviewed scientific journals can be found on the website of the SA Rooibos Council at www.sarooibos.co.za

The collaborative research was carried out at: Antioxidant Research Laboratory, Human Nutrition Unit, INRAN, Rome; Food and Nutrition Unit, IRCCS, Rome; Plant Products and Human Nutrition Group, University of Glasgow; Diabetes Unit, San Camillo Forlanini Hospital, Rome. The study has been published in *Food Chemistry*: Villaño, D., et al. 2010. Unfermented and fermented rooibos teas (*Aspalathus linearis*) increase plasma total antioxidant capacity in healthy humans. *Food Chemistry* 123 (2016) 679-683.