Medical Xpress

Study shows pine bark reduces jetlag

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A new study published in the journal of Minerva Cardioangiologica reveals Pycnogenol, pine bark extract from the French maritime pine tree, reduces jetlag in passengers by nearly 50 percent. The two-part study, consisting of a brain CT scan and a scoring system, showed Pycnogenol lowered symptoms of jetlag such as fatigue, headaches, insomnia and brain edema (swelling) in both healthy individuals and hypertensive patients. Passengers also experienced minimal lower leg edema, a common condition associated with long flights.

Jetlag, also called desynchronosis, is a temporary disorder that causes a variety of temporary mental and physical impairments as a result of air travel across time zones – common in flights to Asia and Europe, but also observed in travelers between West and East coast. It is caused due to the body's inability to immediately adjust to the time in a different zone while travelling. As the body struggles to cope with the new schedule, temporary conditions such as insomnia, fatigue, irritability and an impaired ability to concentrate may set in.

"This study could not have come at a better time for the upcoming holiday travel season," said Dr. Gianni Belcaro, a lead researcher of the study. Belcaro attributes Pycnogenol's combined activities for better circulation and antioxidant potency to such remarkable results. "Previous Pycnogenol flight studies have shown a reduction in jetlag; however this was the first study to solely focus on the condition."

The study, conducted at the G. D'Annunzio University in Pescara, Italy, consisted of 133 passengers who took flights that were seven to nine

hours in length. Fifty mg of oral Pycnogenol was administered three times daily, for seven days, starting two days prior to the flight.

Patients in the first part of the study were evaluated with a rating scale consisting of a scoring system. Thirty-eight Pycnogenol-treated and 30 control patients were rated on the most common complaints of jetlag: dehydration and loss of appetite; headaches and/or sinus irritation; fatigue; disorientation and/or grogginess; nausea and/or upset stomach; insomnia and/or highly irregular sleep patterns; irritability; irrational behavior; alternation in mental performance (easy crossword); alternations in general wellbeing; hours of duration of any signs/symptoms; and nights of altered/disturbed sleep. Observations were measured and taken within 48 hours after the end of the flights. Results showed a significantly lower score (56 percent) in the Pycnogenol group for all items rated, amounting in a significant reduction of all jetlag signs and symptoms. Moreover, symptoms lasted only for an average of 18.2 hours in the Pycnogenol group as compared to 39.3 hours in the control group.

In a second group of flight passengers, a brain CT scan was performed after the flight in order to assess brain alterations after flights. The study consisted of 34 Pycnogenol-treated patients and 31 controlled patients. Jetlag symptoms were evaluated using a rating scale providing scores according to the severity. The first observation was performed within 28 hours from the end of the flight. Sleep alterations, short-term memory alterations, disorientation, neurological signs/symptoms of instability, anxiety, minor cardiac alterations (heart rate, blood pressure), lower limb swelling, fatigue and other, a-specific signs/symptoms (cramps, joints/muscular pain, blurred vision, vertigo, mild sickness, increase in body temperature, appetite loss, headache, mild tongue swelling) were all significantly lower by in average 61.5% in the Pycnogenol group compared to the untreated control group.

"This is the first study describing diffuse subliminal swellings of the brain after long haul flights, which we found to be reduced to less than half in the Pycnogenol group," said Dr. Belcaro

"I'm encouraged by the results of the study as Pycnogenol was effective in preventing jetlag related effects without any side-effects," said Dr. Belcaro. While more research needs to be conducted on this topic, Pycnogenol is emerging as natural, yet safe option for long distance travelers.

Pycnogenol has been shown to be beneficial for flight travel in previous studies pertaining to edema, deep vein thrombosis (DVT) and blood circulation improvement. A study published in *Clinical Applied Thrombosis/Hemostasis* recorded passengers supplementing with Pycnogenol on long distance flights lasting 7-12 hours were significantly protected from thrombotic events, complications resulting from deep vein thrombosis (DVT) and superficial vein thrombosis (SVT). In 2005, a study published in *Clinical and Applied Thrombosis/Hemostasis* showed Pycnogenol to be effective in reducing leg and ankle swelling (edema) during long airplane flights lasting seven to 12 hours.

Source: MWW Group