

Two Litres a Day Helps You Think and Play

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The body, for its well-being and to enable it to perform mentally and physically, requires a balanced fluid intake. This means consuming at least two litres of fluid a day.

Who, on occasion has not longed for just one little drink to help restore their flagging energy? Achieving an optimal fluid balance can have a decisive factor on an individual's well being and performance. It affects both physical and mental ability whether one is a top sports performer running the 1500 metres or just an average person studying at school, or working in an office.

Water makes up 60-70% of men's body weight while women have 55-65% because of their higher body fat content and babies have a higher water content of an amazing 75%. Performance levels drop if a person's fluid intake is too low. A fluid deficiency of 2% of body weight is sufficient to start reducing the ability to perform. This can disrupt concentration, attention and the capacity to remember.

The Bare Necessities

Two litres of fluid intake per day is needed as the body eliminates this quantity of fluid every day through the skin, lungs, bladder and intestines. As water is the body's most important component it cannot go without it for more than about three days. The amount of body fluid is regulated via the skin and the kidneys. Perspiration maintains internal temperature at a constant 37 degrees Celsius and the kidneys filter poisons and waste metabolic products from the blood by eliminating them via urine.

Insufficient water intake has side effects. Blood plasma and total blood volume decrease. The reduced blood flow to the heart results in the body becoming poorly supplied with blood and oxygen. If deprived of water, the brain, blood, muscles and other organs cannot function properly. Effects felt are fatigue and in the long term constipation and circulatory problems.

An important factor is striking the right balance between fluid and the intake of sodium and other so called electrolytes, including potassium. Normally we get enough electrolytes from our regular diet, but in cases of extreme exertion and heat, extra electrolytes, mainly sodium, need to be taken in the form of salt.

Children and seniors

Astonishingly, feeling thirsty is not increased if fluid deficiency is reaching about 2% of body weight. Two groups of people often don't drink enough - children and older people. The former because their feeling of thirst is not developed enough and the latter because their thirst regulation mechanism is declining. Fluid deficiency in older people means too little urine is removed via the kidneys. A build up of urine related waste substances affects health and well being. Without waiting to feel thirsty, this group should drink water, hot and cold beverages and soups regularly in order to prevent dehydration. Children on the other

hand have a higher fluid requirement particularly if it is hot or they are active. Young children (under 12 years) cannot regulate their body temperature as well as older kids and adults. So they are particularly prone to overheating if dehydrated.

Sport and weather

For very physically active people and in hot weather, fluid loss can increase significantly. Too little fluid intake results in a reduction in the rate of perspiration and concomitant overheating and heat related physical damage can result. Those living at higher altitudes and in cold climates also require more fluids. Prof. Dr. Josef Keul, Chief Medical doctor to the German Olympic Team at the Atlanta and Nagano Games says, "Only those who drink enough are really fit".