

Parents are damaging toddlers' mental health by allowing them onto social media from the age of two, 11 years before they should be, said a report by Barnardo's, a British charity which cares for vulnerable children.

Researchers find physical activity in preschool years can affect future heart health



Physical activity in early childhood may have an impact on cardiovascular health later in life, according to new research from McMaster University, in Canada where scientists followed the activity levels of hundreds of preschoolers over a period of years.

They found that physical activity in children as young as three years old benefits blood vessel health, cardiovascular fitness and is key to the prevention of early risk indicators that can lead to adult heart disease, medical experts reported.

The study, named "Health Outcomes and Physical Activity in Preschoolers", published in the journal *Pediatrics*, is the first to demonstrate the benefits of physical activity on blood vessel health in preschoolers.

"Many of us tend to think cardiovascular disease hits in older age, but arteries begin to stiffen when we are very young," explained Nicole Proudfoot, a graduate student in the Department of Kinesiology at McMaster University, Canada, and lead author on the study.

"It's important to start any kind of preventative measures early. We need to ensure small children have many opportunities to be active to keep their hearts and blood vessels as healthy as possible," she said.

More than 400 children between the ages of three and five were involved in the study. Over the course of three years, the researchers measured and analyzed key markers of heart health: Cardiovascular fitness, arterial stiffness and blood pressure.

The researchers calculated cardiovascular fitness by measuring how long the children could last on a treadmill test and how fast their heart rates recovered after exercise. They measured arterial stiffness by how fast their pulse traveled through their body and used ultrasound imaging to measure the stiffness of the carotid artery. They also measured blood pressure.

They tracked physical activity each year by having the children wear an accelerometer around their waist for one week, allowing researchers to determine the amount and intensity of their activity each day.

The researchers determined that while arteries stiffen over time, the process is slower in young children who have been more active. Those children also showed more endurance on the treadmill, suggesting they had better cardiovascular fitness, and their heart rates came down faster after exercise. While the findings showed total physical activity had favorable effects on cardiovascular health, more intense physical activity was more

beneficial. "This research suggests that intensity matters," said Brian Timmons, an associate professor in the Department of Pediatrics at McMaster and the Canada Research Chair in Child Health & Exercise Medicine, who supervised the research. "Children benefit the most from energetic play, which means getting out of breath by playing games such as tag. And the more, the better."

The physical activity does not have to happen all at once, he suggested. Children should be active throughout the day. The findings were similar among boys and girls who participated in the study, though researchers found physical activity had a positive influence on blood pressure in the girls only.

"We know physical activity is key to cardiovascular health, but these findings point to the protective effects it can have very early in life," said Maureen MacDonald, dean of the Faculty of Science at McMaster and co-investigator on the study. "In future, we hope to examine if these beneficial effects of physical activity on heart health indicators in early childhood carry on into later childhood and eventually adulthood."

Study: Radiation drives up cardiac event risk for lung cancer patients

Radiation treatment may help rid patients of lung cancer, but it works at the risk of bringing on equally serious cardiovascular conditions, a new study shows.

Thoracic radiotherapy for patients with lung cancer led to more than 10 percent of patients having heart attacks, heart failure and other cardiac episodes, according to research published in *Journal of the American College of Cardiology*, UPI wrote.

The rates of people considered at high risk for a cardiac event was even higher for lung cancer patients with no history of cardiovascular disease.

"This is alarming data — to think that one in 10 of the patients I'm treating for this type of cancer will go on to have a heart attack or other major cardiac event," Raymond Mak, a thoracic radiation oncologist at the Brigham and Women's Hospital and study senior author, said in a news release.

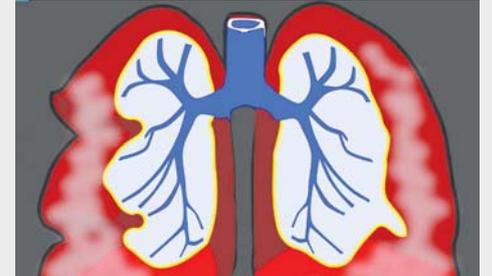
"These cardiac events are happening earlier and more often than previously thought. More patients are living long enough to experience this risk of cardiac toxicity. We need to start paying attention to this and working together with cardiologists to help these patients."

For the study, researchers looked at

data for 748 patients with non-small cell lung cancer and found a direct correlation between increased dosages of heart radiation exposure and the risk of a cardiac event.

The authors say patients should receive lower dosages of radiation than national guidelines call for, preferably 10 gray units compared to 20.

"When possible, we should be thinking



Thoracic radiotherapy treatment led to 77 patients having major adverse cardiac episodes.

The danger of developing coronary heart disease or another cardiac event was particularly high among those who didn't have the condition before radiotherapy treatment, study results revealed.

about ways to minimize cardiac radiation dose," Mak said.

"Recognizing that we may not always be able to do that, we're now collaborating with our cardiology colleagues to explore early interventions to help mitigate the effects of cardiac injury from radiation therapy."

Nitrate in drinking water linked to thousands of cancer cases in US each year

A new study from the Environmental Working Group (EWG) has revealed that nitrate contamination in drinking water across the US may be responsible for more than 12,500 cases of cancer each year.

The overall cost associated with medical treatment could be as high as \$1.5 billion a year, earth.com wrote.

"Nitrate contamination of drinking water is a serious problem, and especially severe in the nation's farm

per million (ppm). However, nitrate levels less than one-tenth of this legal limit have been tied to cancer and other serious health issues in several previous studies.

The EWG team found that colorectal cancer made up 80 percent of the nitrate-related cases, while ovarian, thyroid, kidney and bladder cancer made up the rest. In addition, the experts estimated that nitrate pollution may be responsible for as many as 2,939 cases of very low birth weight, 1,725 cases of preterm birth, and 41 cases of neural tube defects.

According to the researchers, the level at which nitrate in drinking water would cause no adverse health effects is 70 times lower than the US Environmental Protection Agency's (EPA) legal limit. However, the EPA suspended its plans to re-evaluate the legal nitrate limit earlier this year.

"Millions of Americans are being involuntarily exposed to nitrate, and they are also the ones paying the heavy costs of treating contaminated tap water," said study lead author and EWG toxicologist Dr. Alexis Temkin. "But the federal government is not doing enough to protect Americans from tap water contamination."



The nitrate contamination of public water systems is primarily caused by agricultural runoff containing fertilizer and manure. The researchers estimated the number of cancer cases that could be linked to this type of water pollution in each state, and found that

country," said EWG senior science advisor Dr. Olga Naidenko.

"Now, for the first time, we can see the staggering consequences of this pollution."

In 1962, the federal drinking water standard for nitrate was set at 10 parts

Does sun cream stop you absorbing vitamin D?

Vitamin D deficiency can lead to bone deformities such as rickets in children and osteomalacia in adults. But between late March and the end of September, people should be able to get all the vitamin D they need from sunlight.

According to express.co.uk, exposing the skin to UVB rays from the sun can help support the body to naturally produce vitamin D. But can wearing sun cream potentially stop your body from absorbing the sunlight it needs?

Pareena Patel, British LloydsPharmacy pharmacist, revealed the answer.

While your body needs exposure from the sun to produce vitamin D, Pareena said your body needs very little exposure to reap the benefits.

She explained: "You may only need 15 minutes of exposure to the sun before your body makes enough vitamin D it needs for the day."

But if you're out in the sun for long periods of time, your sun safety should not be compro-

mised, warned Pareena. She advised: "If you are out in the sun for longer periods of time, you should be wearing sun protection containing SPF 15 or more."

"It's important to remember that you should not compromise your



nourishedkitchen.com

sun safety to obtain vitamin D.

"There are many other ways to achieve the recommended dosage whether through diet or with a supplement, many of which are available for both adults and children."

The Department of Health recommends breastfed babies from birth to one year of age should be given a daily supplement containing

8.5 to 10 micrograms of vitamin D to make sure they get enough.

Children aged one to four years old should also be given a daily supplement containing 10 micrograms of vitamin D.

During the winter

meat, liver, egg yolks and fortified foods such as breakfast cereals. When it comes to what sun cream to use for protection against the sun, Pareena said alongside SPF, you should check if the cream or lotion provides protection against both UVA and UVB rays.

She explained: "UVB radiation is thought to be the cause of sunburn and has linked to some types of skin cancer. On the other hand, UVA rays may induce premature ageing and UVA damage can contribute to the development of skin cancer too."

"Besides UVA and UVB rays, infrared-A radiation within the sun's rays can also cause damage to the skin in a similar way to that of UV radiation."

"There are sun creams available that provide protection against UVA, UVB and infrared-A radiation, including LloydsPharmacy's Soleo-r Triple Defense Protection range which is available in SPF 15, 30 and 50."

It's difficult for people to get enough vitamin D through food, but the vitamin is found in small amounts in oily fish, red



Iranian Offshore Oil Company (P.J.S)

INVITATION TO PUBLIC TENDER (Pre-Qualification)
Chartering of One Fast Crew Boat

First Announcement
TENDER NO: 62498037
Permit No:1398/1565

Iranian Offshore Oil Company (IOOC) intends to open Pre-Qualification for above tender with the following conditions:
Scope of work: Chartering of One Fast Crew Boat
Location: IOOC Oil Fields in Persian Gulf
Performance Period: 2 Years
Other item shall be considered:

- 1 Ability of submission Bid Bond as in the amount of Iranian Rial 4,240,303,200 for Iranian Bidders and EURO 90,367.00 for Foreign Bidders
- 2 Ability of submission 10% of total Contract Price value as performance guarantee in case of winning according to Company's procedure.
- 3 Proposals should be submitted with no condition, incomplete, ambiguous or adverse of Package specification in deadline.
- 4 Company shall reserve the right to accept or reject any or all of proposals or part(s) thereof according to Tender Law.
- 5 The validity of the submitted financial proposals shall be 3 months from the opening of financial envelopes date and extendable for one further period.

For invitation to above tender, it is necessary to achieve the determinate minimum score in the Pre-qualification. Bidders who have ability and are willing to participate in the Pre-qualification are requested to submit a written request to Contract Department, within One Week from Second Announcement by representative and collect the Pre-qualification Forms.

Closing Date for submission of the Pre-qualification documents shall be up to 14 days after the deadline of collecting Pre-qualification documents. Place and time of submission and opening of proposals will be stated in Tender Documents.

Address for willing to participate and submission Pre-qualification Documents: 5th Floor, #12, Touraj St., Khakzad st., Vali-e-Asr Ave., after Balal Mosque, before Modarres Crossroad, Tehran, Iran.
Tel: +9821-23942510
Note: Additional information is available at IOOC website address: www.iooc.co.ir on the day of Second Announcement.

Iranian Offshore Oil Company Public Relations