



FOREWORD

MediTimes from the desk of Medical Services brings the latest trending healthcare news.

*The **In focus** latest medical news comprises of articles on **Smartphone use associated with higher Myopic Refractive Errors in Teenagers** and **Soft skin Patch could provide early warning for strokes, heart attacks***

*The COVID-19 infohub focuses on knowing about **How children can wear Fabric masks***

*The greens for health section, in this issue provides an insight about the health benefits of **Aloe-Vera***

Hope this July 2021 Issue of Meditimes would be an informative reading

Happy Reading!!!

Best Regards,

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Senior VP- Medical Services

LATEST MEDICAL NEWS



Smartphone use associated with higher Myopic Refractive Errors in Teenagers



Soft skin Patch could provide early warning for strokes, heart attacks

COVID-19 INFOHUB



How children can wear Fabric masks

GREENS FOR HEALTH



Aloe-Vera



FUN CORNER



DIMAG KA BATTI JALAO!



Smartphone use associated with higher Myopic Refractive Errors in Teenagers



Myopia or nearsightedness is a visual condition in which people see objects more clearly when they are close to the eye, while distant objects appear blurred. The proportion of people with myopia is rising all over the world. Early onset of myopia results in higher degrees of myopia in adulthood.

This study published in the Journal of ophthalmology aimed at investigating smartphone use and refractive errors in teenagers using Myopia app.

25 teenagers aged 12 to 16 years old participated in this study. Smartphone application (Myopia app) was designed to assess smartphone use and face to screen distance, and to pose questions about outdoor exposure at regular intervals. Participants underwent cycloplegic refractive error which is used to determine complete refractive error by relaxing the muscles that aid in focusing the eye and also underwent ocular biometry measurements

This study revealed that teenagers spent almost 4 hours on their smartphones per day. 20 minutes continuous use was associated with myopic refractive errors especially in those with low outdoor exposure. In teenagers with high outdoor exposure, this association disappeared which suggest outdoor exposure may moderate this effect.

This study showed that frequent breaks should become a recommendation for smartphone use in teenagers. Awareness of the potential negative consequences of prolonged smartphone use is warranted.

Reference: Enthoven CA, Poilng JR, Verzijden J, Fidemian JW, Al Jaffar N, Janson P, Kaat I, Metz L, Verhoeven VJ, Klaver CC. Smartphone use associated with refractive error in teenagers, the Myopia app Study. Ophthalmology. 2021 Jul 8.



Soft skin Patch could provide early warning for strokes heart attacks



It is important to know how fast and how much blood flows through a patient's blood vessels because it can help clinicians to diagnose various cardiovascular diseases including blood clots, poor circulation in the limbs, or blockages in the arteries that could lead to strokes or heart attacks.

This study published in the *journal Nature Biomedical Engineering* developed new ultrasound patch which can continuously monitor blood flow as well as blood pressure and heart function -- in real time. It was easier to identify cardiovascular problems early on and could measure cardiovascular signals as deep as 14 centimeters inside the body in a non-invasive manner with high accuracy. The patch can be worn on the neck or chest.

This patch is made up of thin sheet of flexible, stretchable polymer that sticks to the skin. There is an array of millimeter-sized ultrasound transducers on the patch. This array is called as ultrasound phased array which gives the patch the ability to go deeper and wider. They vibrate and emit ultrasound waves that travel through the skin and deep into the body when electricity flows through the transducers.

Another feature of this patch was ultrasound beam can be tilted at different angles and steered to areas in the body that are not directly underneath the patch. To sense signals at a different position, sensor has to be moved to different position. Author Sheng Xu says that this type of wearable device gives more accurate picture of what's going on in deep tissues and organs like heart and the brain, all from the surface of the skin.

This study suggest that soft, stretchy ultrasound patch makes it easier to determine cardiovascular problems, like blockages in the arteries that could lead to strokes or heart attacks. The patch can be worn on the skin to monitor blood flow through vessels deep inside the body.

Reference: Wang C, Qi B, Lin M, Shan Z, Miakihata M, Liu B, Zhou S, Huang YH, Hu H, Gu Y, Chen Y. Continuous monitoring of deep tissue hemodynamic with stretchable ultrasonic phased array. *Nature Biomedical Engineering*. 2021 Jul;5(7):749-58.



COVID-19 : Infohub

HOW CHILDREN CAN WEAR FABRIC MASKS

TO PROTECT YOURSELF AND OTHERS, REMEMBER TO:

- Keep at least 1 metre distance from others
- Clean your hands often
- Avoid touching your face and the front of the mask
- Wear the mask with the correct side up and out



Clean hands before touching the mask



Inspect the mask for damage or if dirty



Identify the inside of the mask which will touch the face and the upper part that will cover the nose



Adjust the mask without leaving gaps on the sides



Cover mouth, nose and chin



Avoid touching the front of the mask



Clean hands before removing the mask



Remove the mask by the straps



Store the mask in a clean bag or container



Clean hands after removing the mask



Wash the mask at least once a day, preferably with hot water



Do not share masks with others





Aloe-Vera

The botanical name of Aloe vera is Aloe barbadensis miller. It belongs to *Liliaceae* family. The plant has triangular, fleshy leaves with serrated edges.

Health Benefits

- Antioxidant
- Hydrates the Skin
- Boosts Immunity
- Aids in Healthy Digestion



<https://www.healthline.com/nutrition/health-properties-of-aloe-vera/>

Nutrition Facts

Serving Size 1 cup

Amount Per Serving		% Daily Values*	
Calories 131			
Total Fat 0.3g			0%
Saturated Fat 0.02g			0%
Trans Fat 0g			
Polyunsaturated Fat 0.104g			
Monounsaturated Fat 0.035g			
Cholesterol 0mg			0%
Potassium 322mg			9%
Sodium 5mg			0%
Total Carbohydrate 31.92g			11%
Dietary Fiber 0.5g			2%
Sugars 24.75g			
Protein 0.89g			2%

*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2400mg	2400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g





Medi Times

MONTHLY NEWSLETTER

MEDICAL
SERVICES

VOL 7 | ISSUE 82 | JULY 2021



Wife joins English speaking class. After few days.

Wife:-

Welcome home darling.



Husband:-

I am so tired today.

Wife:-

OK. Rest in Peace.





DIMAG KI BATTI JALAO



1. Myopia or nearsightedness is a visual condition in which people see objects more clearly when they are far away from the eye. Is it True or False ?
2. Aloe vera belongs to _____ family.
3. Ravi is an architect. He buys a room which has no ventilation, no ducts or entry points. What is it?



Please send your quiz answers to drmanjula@microlabs.in or medicalservices@microlabs.in and winner will get a surprise gift