



## DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
Monday 20190916

### कैंसर

**Cancer मरीजों को कीमोथेरेपी में नहीं खोने पड़ेंगे बाल, इलाज का नया तरीका ईजाद (Dainik Jagran: 20190916)**

<https://www.jagran.com/world/america-now-cancer-patient-will-not-lose-hair-in-chemotherapy-extracellular-vesicles-is-more-effective-jagran-special-19581999.html>

नई दिल्ली [जागरण स्पेशल]। कैंसर मरीजों के लिए खुशखबरी है। वैज्ञानिकों ने कैंसर मरीजों के इलाज का नया तरीका ईजाद किया है। वैज्ञानिकों का दावा है कि इलाज का नया तरीका कीमोथेरेपी से ज्यादा कारगर है। इतना ही नहीं वैज्ञानिकों ने एक तरीका इजाद किया है, जिससे कैंसर मरीजों को काफी राहत मिलेगी। विशेष तौर पर महिला मरीजों को। अब उन्हें कीमोथेरेपी के दौरान अपने बाल नहीं खोने पड़ेंगे।

कैंसर से लड़ सकते हैं शरीर के बुलबुले

कैंसर किसी भी तरह का हो, लोगों के माथे पर शिकन जरूर ला देता है, क्योंकि इसका इलाज बहुत मुश्किल होता है। कुछ मामलों में इलाज है भी तो वह बहुत खर्चीला होता है। अब इससे निपटने के लिए एक नई विधि ईजाद की है। वैज्ञानिकों ने हमारे शरीर में छोटे-छोटे बुलबुलों का पता लगाया है, जो कैंसर के इलाज में उपयोगी सिद्ध हो सकता है। वैज्ञानिकों का दावा है कि ये बुलबुले कीमोथेरेपी के मुकाबले बीमारी से बेहतर तरीके से लड़ सकते हैं। इन्हें वाहय कोशिकाएं या एक्स्ट्रासेल्यूलर वेसिकल्स(ईवीएस) भी कहा जाता है।

ऐसे काम करती है नई तकनीक

हमारे शरीर की कोशिकाएं बेहद छोटे-आकार के बुलबुलों का स्नाव (रिलीज) करती हैं, जो आनुवांशिक सामग्री जैसे डीएनए और आरएनए को अन्य कोशिकाओं में स्थानांतरित करते हैं। यह आपका डीएनए ही है, जो प्रोटीन का उत्पादन करने के लिए आरएनए के लिए आवश्यक और महत्वपूर्ण जानकारी संग्रहीत करता है और सुनिश्चित करता है कि वे उसके अनुसार काम करते रहें। शोधकर्ताओं के मुताबिक, हमारे शरीर में पाए जाने वाले एक्स्ट्रासेल्यूलर वेसिकल्स दवाओं और जीन के मेल से कैंसर कोशिकाओं को लक्षित कर उन्हें मार देती हैं।



**जागरण**

### पैंक्रिएटिक कैंसर के लक्षण

- **पेट के ऊपरी भाग (एबडोमेन) में दर्द रहना।**
- **त्वचा, आंख और पेशाब का रंग पीला होना।**
- **भूख न लगना, जी मिचलाना, उल्टियां होना।**
- **हमेशा शरीर में कमजोरी महसूस होना।**
- **कुछ महीनों में तेजी से शरीर का वजन घटना।**

शरीर में तुरंत सक्रिय हो जाती है ये दवाएं

शोधकर्ताओं का यह अध्ययन मॉलीक्यूलर कैंसर थेरेपिटिक्स में प्रकाशित हुआ है, जो चूहों के स्तन की कैंसर की कोशिकाओं पर आधारित था। इस अध्ययन के प्रमुख लेखक और मिशीगन स्टेट यूनिवर्सिटी में असिस्टेंट प्रोफेसर मैसमित्सु कनाडा ने कहा कि हमने जो किया है, वह शरीर में एंजाइम-उत्पादक

जीन को वितरित करने का एक बेहतर तरीका साबित हो सकता है। यह कुछ दवाओं को विषाक्त एजेंटों में बदल कर ट्यूमर की कोशिकाओं को निशाना बना सकता है। उन्होंने कहा कि ये दवाएं (प्रोड्रग) शुरुआत में निष्क्रिय यौगिक के रूप में रहती हैं, लेकिन शरीर के भीतर पहुंचते ही तुरंत सक्रिय हो जाती हैं और कैंसर की कोशिकाओं से लड़ना शुरू कर देती हैं।

ऐसे किया गया अध्ययन

इस अध्ययन के लिए शोधकर्ताओं ने एंजाइम-उत्पादक जीन को वितरित करने के लिए ईवीएस यानी एक्स्ट्रासेल्यूलर वेसिकल्स का इस्तेमाल किया, जो स्तन कैंसर की कोशिकाओं में गैनिक्लोविर और सीबी1954 नामक दवाओं के संयोजन के जरिये उन्हें सक्रिय कर सकता था। शोधकर्ताओं ने दो अलग-अलग जीन वैक्टर, मिनिकिरकल डीएनए और नियमित प्लास्मिड को वेसिकल्स लोड कर यह देखा कि क्या यह दवाओं को ट्यूमर की कोशिकाओं तक ले जाने में सक्षम है या नहीं। अध्ययन के दौरान शोधकर्ताओं ने पाया कि मिनिकिरकल डीएनए कैंसर की कोशिकाओं को मारने में अन्य के मुकाबले 14 गुना ज्यादा कारगर है। इसे प्रोड्रग थेरेपी के रूप में जाना जाता है।

कीमोथेरेपी नहीं कर पाती अंतर

प्रोफेसर मैसमित्सु कनाडा ने कहा कि परंपरागत कीमोथेरेपी ट्यूमर और सामान्य ऊतक के बीच अंतर करने में सक्षम नहीं है, इसलिए यह सभी पर हमला करता है। वहीं ईवीएस के जरिये उपचार करने पर केवल लक्षित हिस्सों को ही निशाना बनाया जाता है। इससे अवांछित प्रतिरक्षा प्रतिक्रियाओं के जोखिम को कम किया जा सकता है। कनाडा ने कहा कि अभी केवल चूहे पर इसका सफल प्रयोग किया गया है। यदि भविष्य में ईवीएस मनुष्यों में प्रभावी साबित होते हैं तो यह जीन वितरण के लिए एक आदर्श मंच सिद्ध होगा।

# भारत में तेजी से बढ़े रहे कैंसर मरीज

जनगणना वर्ष	कुल आबादी	60 वर्ष से ज्यादा आयु वाली आबादी	कैंसर के संभावित मरीज (60 वर्ष से ज्यादा)
1901	238,396,327	1.2 करोड़	49,536
1911	252,093,390	1.31 करोड़	54,077
1921	251,321,213	1.34 करोड़	55,315
1931	278,977,238	1.42 करोड़	58,618
1941	318,660,580	1.8 करोड़	74,304
1951	361,088,090	1.96 करोड़	80,908
1961	439,234,771	2.47 करोड़	101,962
1971	548,159,652	3.26 करोड़	134,573
1981	638,329,097	4.31 करोड़	177,917
1991	846,427,039	5.66 करोड़	233,645
2001	1,028,737,436	7.66 करोड़	316,205
2011	1,210,854,977	9.85 करोड़	406,608

## कीमोथेरेपी में बाल झड़ने से मुक्ति

वैज्ञानिकों को कीमोथेरेपी में बाल झड़ने की रोकथाम करने में बड़ी सफलता मिली है। उन्होंने एक ऐसा तरीका खोज निकाला है, जिससे बालों को बचाया जा सकता है। कैंसर में आमतौर पर कीमोथेरेपी की जाती है। इसका एक प्रमुख दुष्प्रभाव बाल झड़ने के तौर पर सामने आता है। शोधकर्ताओं के अनुसार, अध्ययन के नतीजों से जाहिर हुआ कि कैंसर के उपचार में काम आने वाली टैक्सनेस दवाओं से हमेशा के लिए बाल झड़ सकता है। इस समस्या की रोकथाम हो सकती है। ईएमबीओ मोलेक्यूलर मेडिसिन जर्नल में प्रकाशित अध्ययन के अनुसार, कैंसर रोधी दवा के तौर पर टैक्सनेस का आमतौर पर

इस्तेमाल होता है। स्तन से लेकर फेफड़ों के कैंसर तक के उपचार में यह दवा उपयोगी होती है। शोधकर्ताओं ने पाया कि CDK4/6 इन्हिबिटर वर्ग की नई दवाएं, कोशिकाओं में विभाजन को रोकती हैं। इससे बालों को कोई नुकसान नहीं पहुंचता है। इन दवाओं को कैंसर के उपचार के लिए मंजूरी भी मिल चुकी है।

## स्तन कैंसर

**पुरुषों पर भी हो स्तन कैंसर की दवा का परीक्षण, अमेरिकी शोधकर्ताओं ने जारी किए निर्देश (Dainik Jagran: 20190916)**

<https://www.jagran.com/world/america-breast-cancer-drug-test-on-men-too-19578808.html>

चिकित्सा जगत में लंबे समय से मांग चल रही है कि दवाओं के परीक्षण में पुरुषों को शामिल किया जाए। अब अमेरिका ने इस बारे में बाकायदा दिशा निर्देश जारी किए हैं।

वाशिंगटन, एर्जेसी। स्तन कैंसर को लेकर सामान्य धारणा है कि यह कैंसर महिलाओं को होता है। यही कारण है कि स्तन कैंसर की नई दवाओं के परीक्षण में पुरुषों को शामिल नहीं किया जाता है। यह सही नहीं है। कुछ पुरुषों में भी स्तन कैंसर की आशंका रहती है। हालांकि, इनकी संख्या एक फीसद से कम ही रहती है। इन्हें ध्यान में रखते हुए चिकित्सा जगत में लंबे समय से मांग चल रही है कि दवाओं के परीक्षण में पुरुषों को शामिल किया जाए। अब अमेरिका के फूड एंड ड्रग एडमिनिस्ट्रेशन (एफडीए) ने शोधकर्ताओं के लिए इस संबंध में निर्देश जारी किया है।

ह्यूस्टन स्थित एमडी एंडरसन कैंसर सेंटर की डॉ. शेरन गिआर्डिनो ने कहा, 'अपने सामने ऐसे मरीज को देखना बहुत निराशाजनक होता है, जिससे हमें यह कहना पड़ता है कि पता नहीं दवा उस पर असर करेगी या नहीं। दवा का परीक्षण केवल महिलाओं पर किया गया है। पुरुषों पर असर का कोई वैज्ञानिक प्रमाण नहीं है।' उन्होंने कहा कि भले ही परीक्षण के दौरान बहुत थोड़े ही पुरुष शामिल होंगे, लेकिन उनके आधार पर कम से कम कुछ आंकड़े जुटाना तो संभव होगा ही। अभी प्रायः ऐसे पुरुष सामान्य देखभाल और जीवनरक्षक दवाओं से वंचित रह जाते हैं।

नहीं मिल पाता पर्याप्त इलाज

पुरुषों में स्तन कैंसर को लेकर 2017 में एक अध्ययन प्रकाशित हुआ था। इसमें कनाडा, अमेरिका और यूरोपीय देशों में स्तन कैंसर से पीड़ित 1,500 पुरुषों को शामिल किया गया था। इसमें पाया गया कि ज्यादातर पुरुषों के स्तन कैंसर का इलाज एंटी-एस्ट्रोजन थेरेपी से संभव था लेकिन करीब चौथाई मरीज इस इलाज से वंचित थे। शोधकर्ताओं ने कहा कि दुर्लभ बीमारी के मरीजों को अक्सर कम देखभाल मिलती है। पुरुषों के लिए स्तन कैंसर भी ऐसी ही दुर्लभ बीमारी है।

जागरूकता की कमी बड़ी समस्या

जागरूकता की कमी है सबसे बड़ी समस्या स्तन कैंसर से पीड़ित पुरुषों को अक्सर आखिरी स्टेज के बाद बीमारी का एहसास होता है। इसका मुख्य कारण यही है कि उन्हें इस बात का अंदाजा ही नहीं होता है कि पुरुषों में यह बीमारी हो सकती है। डॉ. फातिमा काडरेसो ने कहा कि पुरुषों में जागरूकता फैलाने की जरूरत है कि उन्हें भी स्तन कैंसर हो सकता है। उन्हें भी समय-समय पर जांच करते रहना चाहिए। फिलहाल चिकित्सकों और शोधकर्ताओं ने एफडीए के निर्देश का स्वागत किया है कि दवाओं के परीक्षण में पुरुषों को भी शामिल किया जाए।

पहले और दूसरे चरण में संभव है इलाज

शरीर के किसी अंग में होने वाली कोशिकाओं की अनियंत्रित वृद्धि कैंसर का कारण हो सकती है। स्तन कैंसर होने पर यदि पहले या दूसरे चरण में इसका पता चल जाता है तो इसका इलाज संभव है। लेकिन इस बारे में पता चलना भी पीड़ित की जागरूकता पर निर्भर करता है। यदि वह स्तर कैंसर के प्रति जागरूक है, तो इसके लक्षणों को पहचान कर सही समय में इलाज करवा सकता है।

## कुपोषण

**कुपोषण के चलते भारत में सबसे ज्यादा बच्चे बौनेपन का शिकार, मापदंड मापने की सरकार कर रही समीक्षा (Dainik Jagran: 20190916)**

<https://www.jagran.com/news/national-most-children-in-india-suffer-from-dwarfism-government-review-to-measure-criteria-19579986.html>

भारत में 2.55 करोड़ बच्चे कुपोषित हैं। जबकि नाइजीरिया व इंडोनेशिया में इनकी संख्या 34 व 33 लाख है।

मोदी सरकार - 2.0 के 100 दिन

नई दिल्ली, प्रेटर। सरकार बच्चों में बौनापन मापने के मापदंड की समीक्षा कर रही है। साथ ही भारतीय मानव विज्ञान के अनुसार इसके भारतीयकरण के तरीके का पता भी लगा रही है। सूत्रों ने यह जानकारी दी।

पर्याप्त पोषण न मिलने, बार-बार संक्रमण आदि के कारण बच्चों की लंबाई प्रभावित होती है। इसे बौनापन कहा जाता है। फिलहाल बौनेपन का निर्धारण बच्चे की लंबाई के आधार पर किया जाता है। ग्लोबल न्यूट्रिशन रिपोर्ट-2018 के अनुसार, भारत में सबसे ज्यादा 4.66 करोड़ बच्चे बौनेपन का शिकार हैं। इसके बाद नाइजीरिया व पाकिस्तान का नंबर आता है, जहां क्रमशः 1.39 व 1.07 करोड़ बच्चों में बौनेपन की समस्या है। भारत में 2.55 करोड़ बच्चे कुपोषित हैं, जबकि नाइजीरिया व इंडोनेशिया में इनकी संख्या क्रमशः 34 व 33 लाख है।

बिहार में भी अधिकतर बच्चे बौनेपन का शिकार

राष्ट्रीय परिवार स्वास्थ्य सर्वेक्षण-4 (NFHS-4) के अनुसार, भारत में पांच साल से कम उम्र के 38.4 फीसद बच्चों में बौनापन है। यानी, उनकी लंबाई उम्र के मुकाबले कम है। दूसरी तरफ, 21 प्रतिशत बच्चे ऐसे हैं, जिनका वजन उनकी लंबाई के अनुपात में कम है। सर्वेक्षण के अनुसार, बिहार में पांच साल से कम उम्र के 48.3 फीसद बच्चे बौनेपन का शिकार हैं।

आधिकारिक सूत्रों का कहना है कि भारत के विभिन्न हिस्सों में बच्चों का मानव संरचना विज्ञान बदलता है। विविधतापूर्ण देश में बच्चों में बौनापन मापने का एक ही मापदंड सही नहीं हो सकता।

उन्होंने बताया कि सरकार हार्वर्ड टीएच चान स्कूल ऑफ पब्लिक हेल्थ और विश्व स्वास्थ्य संगठन की मदद से यह जानने का प्रयास कर रही है कि बौनेपन को मापने वाले अंतरराष्ट्रीय मापदंड का भारतीयकरण कैसे किया जाए।

केंद्र व राज्य सरकारें कर रही जागरूक

केंद्र सरकार विभिन्न राज्यों के कुपोषित बच्चों की भोजन की जरूरतों को समझते हुए स्थानीय स्तर पर उपलब्ध ऐसे खाद्य पदार्थों का अध्ययन भी करा रही है, जो पोषणयुक्त होने के साथ-साथ सस्ते और पारंपरिक रूप से स्वीकार्य हों। सरकार बच्चों व उनके परिजनों को भी पोषण के बारे में जागरूक कर रही है।

नियमित रूप से चाय पीने का होता है सकारात्मक असर

# चाय पीने से दुरुस्त रहता है दिमागी तंत्र



सेहत

सिंगापुर | एजेसी

अगर आप भी चाय पीने के शौकीन हैं तो आपके लिए खुशखबरी है। एक हालिया शोध में दावा किया गया है कि नियमित रूप से चाय पीने वाले लोगों के दिमाग का प्रत्येक हिस्सा चाय नहीं पीने वालों की तुलना में बेहतर ढंग से संगठित होता है।

दिमाग के प्रत्येक हिस्से का व्यवस्थित रहना स्वस्थ संज्ञानात्मक क्रिया से जुड़ा हुआ है। इन परिणामों तक पहुंचने के लिए अध्ययन में 36 उम्रदराज लोगों के न्यूरोइमेजिंग डाटा को खंगाला गया। नेशनल यूनिवर्सिटी ऑफ सिंगापुर (एनयूएस) के सहायक प्राध्यापक एवं टीम लीडर फेंग लेई ने कहा, हमारे परिणाम मस्तिष्क के ढांचे पर चाय पीने से पड़ने वाले सकारात्मक योगदान की पहली बार पुष्टि करते हैं और यह दर्शाते हैं कि नियमित रूप से चाय पीना दिमागी तंत्र में उम्र के कारण आने वाली गिरावट से भी बचाता है।



**36** उम्रदराज लोगों के न्यूरोइमेजिंग डाटा को खंगाला गया

**25** साल तक हफ्ते में कम से कम चार बार चाय पीने से दिमाग के हिस्से प्रभावी होते हैं

## ज्यादा गर्म चाय पीने से बचें

आमतौर पर लोगों को गर्म चाय और कॉफी पीने का बहुत शौक होता है, लेकिन यह शौक आप पर भारी भी पड़ सकता है, क्योंकि गर्म चाय पीने वाले लोगों में कैंसर की समस्या पैदा हो सकती है। ब्रिटिश मेडिकल जर्नल में प्रकाशित शोध के अनुसार गर्म चाय या कॉफी पीने से इसोफेगल यानि खाने की नली का कैंसर होने का खतरा रहता है, क्योंकि गर्म चीज हमारे गले के ऊतकों को नुकसान पहुंचाती है। प्रतिदिन 75 डिग्री सेल्सियस या इससे गर्म चाय पीने वालों में इसोफेगल कैंसर का खतरा दोगुना हो जाता है।

**मिजाज में सुधार व रोगों से बचाव होता है :** शोधकर्ताओं ने कहा कि पूर्व के अध्ययनों में दर्शाया गया है कि चाय पीना मानव सेहत के लिए लाभकारी है और इसके सकारात्मक प्रभावों में मिजाज में सुधार होना और हृदय एवं

नसों संबंधी बीमारी से बचाना शामिल है। यह अध्ययन 2015 से लेकर 2018 के बीच 60 साल और उससे अधिक उम्र वाले 36 बुजुर्गों पर किया गया जिसमें उनकी सेहत संबंधी डाटा जुटाया गया।

# एंटीबायोटिक्स से होता है दिल की बीमारी का खतरा

लंदन | एजेसी

अधिकतर लोग सिर दर्द व पेट दर्द जैसी छोटी-छोटी समस्याओं के लिए एंटीबायोटिक का काफी इस्तेमाल करते हैं। लेकिन एंटीबायोटिक सेहत के लिए बेहद हानिकारक हो सकती है। इस बात का खुलासा एक अध्ययन में हुआ है। शोधकर्ताओं ने आमतौर पर इस्तेमाल होने वाली एक एंटीबायोटिक और दो तरह की हृदय समस्याओं के बीच संबंध होने के सबूत पाए हैं।

अमेरिकन कॉलेज ऑफ कार्डियॉलजी नामक जर्नल में प्रकाशित इस अध्ययन में शोधकर्ताओं ने पाया कि फ्लोरोक्विनोलोन नामक एंटीबायोटिक, जिसे सिप्रॉफ्लॉक्सिन या सिप्रो के नाम से जाना जाता है, का सेवन करने से माइट्रल

## सावधान

- दो तरह की दिल की बीमारियों और एंटीबायोटिक में मिला संबंध
- ज्यादा बीमारियों में एंटीबायोटिक की जरूरत नहीं होती

रिगरजिटेशन नाम की दिल की समस्या होने का खतरा 2.4 गुना बढ़ जाता है। इसमें खून, शरीर में जाने की बजाय हृदय में वापस चला जाता है। इस एंटीबायोटिक के इस्तेमाल से 30 दिन के अंदर इस समस्या का जोखिम ज्यादा रहता है। यूनिवर्सिटी ऑफ ब्रिटिश कोलंबिया के शोधकर्ता मेहयर ऐटमिनन ने कहा, 'डॉक्टर मरीजों को हर दिन एक गोली लेने की सलाह देकर भेज देते हैं क्योंकि एंटीबायोटिक आसानी से मिल जाती है।

# मोटापा घटाने की दवा जल्द आएगी

लंदन | एजेंसी

अधेड़ उम्र में होने वाले मोटापे को कम करने के लिए जल्द ही एक दवा बाजार में आ सकती है। वैज्ञानिकों ने पता लगाया है कि क्यों कुछ लोग उम्र बढ़ने के साथ मोटे होने लगते हैं, चाहे वो कम खाएं या ज्यादा व्यायाम करें। उनके अनुसार इस उम्र में एडिपोज नामक

ऊतक की क्षमता प्रभावित होती है। यह ऊतक ऊर्जा स्टोर करने के लिए और चर्बी जलाने के लिए जाना जाता है। वैज्ञानिकों का मानना है कि जो कार्य एडिपोज ऊतक करते हैं, वही कार्य दवा करे तो अधेड़ उम्र में भी चर्बी आसानी से जल सकेगी। स्वीडन में हुए इस शोध का प्रकाशन पत्रिका नेचर मेडिसिन में किया गया है।

## **Malnutrition**

### **Amla candy rescues Assam nutrition drive (The Hindu:20190916)**

<https://www.thehindu.com/news/national/other-states/amla-candy-rescues-assam-nutrition-drive/article29426876.ece>

Sweet-sour solution: Gooseberry candy adds nutrients to fight anaemia, among women in particular.

Women unwilling to consume iron-folic acid tablets could opt for alternative.

A drive for good nutrition among pregnant women and children in a southern Assam district has been given a gooseberry candy twist. This follows a report that the targeted groups find the prescribed iron-folic acid tablets repulsive.

According to the 2015 National Family Health Survey, 47.2% of the women of reproductive age in Hailakandi were anaemic. The district, thus, has the most anaemic children below 5 years, adolescents and women of reproductive age in Assam.

But mothers, pregnant women and children in the district, data reveal, consume only 24.3% of the total iron-folic acid tablets that the district receives and distributes. “The tablets given to these groups are often not consumed as they feel nauseated or have constipation issues. There are also myths that these tablets will kill them or make them incapable of conceiving,” District Deputy Commissioner Keerthi Jalli told The Hindu.

Amla, jaggery combo

To get around the problem while launching Poshan Maah, or nutrition month, a few days ago, the district administration decided to produce roundish amla-gur candies with a dose of salt. Nutritionists involved in the campaign said amla, or gooseberry, is rich in Vitamin C and antioxidants, while gur, or jaggery, is rich in iron, vital vitamins and minerals that boost the immune system.

“The gooseberry candy is a home-made recipe, and is provided alongside iron-folic acid tablets as behavioural change in nutritious eating is a slow process. If women and children avoid the tablet, they can get the required vitamin and mineral inputs through the improvised delicacy of which ingredients are available locally,” Ms. Jalli said. The candy is cost-effective too, she said. Anganwadi workers, supervisors and mothers have been engaged to prepare and distribute the ‘laddoos’ with the ingredients given by the district authorities.

“This is a novel initiative that should go a long way in checking anaemia that increases the risk during pregnancy and at childbirth, besides resulting in low birth weight and malnourished children,” Anganwadi worker Labiba Begum Barlaskar said.

About 32.5% of the children aged below five in Hailakandi are underweight. The average figure for Assam is 30%.

## **Low Calorie Food**

**Health-conscious millennials prefer low-cal, gluten-free spiked seltzer over beer (Hindustan Times: 20190916)**

<https://www.hindustantimes.com/more-lifestyle/health-conscious-millennials-prefer-low-cal-gluten-free-spiked-seltzer-over-beer/story-Z2OVIbys9EFCR3EApFmhUI.html>

A 12-ounce can of White Claw contains 100 calories and a maximum two grams of carbs. It is also gluten-free. An average beer usually has 140 calories and five times the carbohydrates.

Cartons of White Claw, a flavoured alcoholic fizz in a can are on display at the Round The Clock Deli September 11, 2019 in New York City. - Health-conscious American millennials have found their drink of choice: alcoholic carbonated water that is lower in calories and carbs than beer and wine. A hard seltzer craze is sweeping the United States as Generation Y and Generation Z pursue healthier lifestyles, influenced by viral trends on Instagram and YouTube. (Photo by TIMOTHY A. CLARY / AFP)

Cartons of White Claw, a flavoured alcoholic fizz in a can are on display at the Round The Clock Deli September 11, 2019 in New York City. - Health-conscious American millennials have found their drink of choice: alcoholic carbonated water that is lower in calories and carbs than beer and wine. A hard seltzer craze is sweeping the United States as Generation Y and Generation Z pursue healthier lifestyles, influenced by viral trends on Instagram and YouTube. (Photo by TIMOTHY A. CLARY / AFP)(AFP)

Health-conscious American millennials have found their drink of choice: alcoholic carbonated water that is lower in calories and carbs than beer and wine.

A hard seltzer craze is sweeping the United States as Generations Y and Z pursue healthier lifestyles, influenced by viral trends on Instagram and YouTube.

US sales of the bubbly booze, also called spiked seltzer, have soared almost 200 percent this year compared to 2018, according to research firm Nielsen.

“It has replaced other canned alcoholic drinks for me,” says Hannah Stempler, a 25-year-old living and working in New York.

Stempler drinks White Claw, the brand at the forefront of America's beverage fixation this summer.

The company said sales were up over 265 percent on-year at the beginning of September and that it holds 61 percent of market share.

Truly, another brand, saw sales spike 163 percent in Q2, according to Macquarie market research.

From beaches and parks to house parties and boat trips, youngsters were seen drinking White Claw across the Big Apple and other major cities.

Panic even struck this month when shopkeepers and retailers reported shortages and the manufacturer said it was working overtime to keep up with demand.

Stempler, who works in television, told AFP that one of the reasons she drinks it is because she is "health-conscious."

A 12-ounce can of White Claw contains 100 calories and a maximum two grams of carbs. It is also gluten-free.

An average beer, in comparison, usually packs 140 calories and five times the number of carbohydrates.

- Beer slowdown -

The hard seltzer has five percent alcohol, which comes from fermented sugars. That equals the strength of Budweiser but is considerably less than the 12 percent commonly found in wine.

Alcoholic sparkling water comes in several flavours, including mango and cherry, appealing to customers seeking convenient, ready-to-drink cocktails on the go.

Sanjiv Gajiwala, White Claw's senior vice president of marketing, thinks young consumers are turning to hard seltzers because of their moderate alcohol levels and variety of tastes.

"Millennials are consumers that grew up on 10 different flavours of Gatorade and cuisines from around the world. When they come to the legal drinking age, they are looking for more," he told AFP.

White Claw sales have surged every year since it launched in 2016 but seems to have captured the imagination this summer in part thanks to YouTube influencer Trevor Wallace.

A video of him drinking White Claw has been watched more than 2.5 million times in two months. The clip spawned memes and hashtags that went viral on social media.

The trend for hard seltzers, which include malt beverages, is shaking up the US alcoholic drinks industry and fueling a slowdown in overall beer sales, analysts say.

Beer manufacturers are rolling out their own seltzers to try to lure customers away from White Claw and Truly.

Anheuser-Busch, which makes Budweiser, has launched Natural Light Seltzer.

- Fad? -

Aaron White, of the National Institute on Alcohol Abuse and Alcoholism, is pleased youngsters are mindful of what they drink but warns that fewer calories does not mean less alcohol.

He worries that people may consume more alcohol because fruity seltzers don't taste like traditional booze, and is especially concerned by the Four Loko brand's plans to launch a seltzer with 14 percent alcohol by volume.

"The alcohol is the drug. Everything else is just the way it's delivered," White told AFP.

Other types of drinks have been the subject of similar crazes in the past, notably wine coolers in the 1980s and Zima, a malt beverage that was all the rage in the 90s.

Rob Fink, a 29-year-old living in New York, believes spiked seltzer is here to stay but says it won't usurp beer and other liquor for him.

"There's a time and place for both," he told AFP.

The alcoholic soda industry is worth \$550 million and could grow to \$2.5 billion by 2021, according to a UBS analyst recently quoted by Business Insider.

Gajiwala notes that White Claw has not even reached six percent of American households yet.

"There is a great opportunity for us to continue to grow," he said.

(This story has been published from a wire agency feed without modifications to the text. Only the headline has been changed.)

## **Eye medication may harm growing infants (Hindustan Times: 20190916)**

<https://www.hindustantimes.com/more-lifestyle/eye-medication-may-harm-growing-infants/story-P9S1e9OXJs3WUB5uysxnaP.html>

Researchers have found that a few drugs used to treat retinal diseases may mix with breast milk, further causing a safety issue for growing infants.

The research published in the journal, 'Ophthalmology' is a first-of-its-kind study led by St. Michael's Hospital in Toronto.

The research published in the journal, 'Ophthalmology' is a first-of-its-kind study led by St. Michael's Hospital in Toronto.(Unsplash)

Nursing and pregnant women beware! Your eye disease medication could have an adverse effect on infants.

Researchers have found that a few drugs used to treat retinal diseases may mix with breast milk, further causing a safety issue for growing infants.

The research published in the journal, 'Ophthalmology' is a first-of-its-kind study led by St. Michael's Hospital in Toronto.

Ranibizumab and aflibercept are medications used to treat several retinal diseases. They contain an agent called anti-vascular endothelial growth factor (anti-VEGF), which blocks the eye's production of vascular endothelial growth factor (VEGF).

VEGF is a protein that stimulates the development of blood vessels but is associated with retinal diseases in high quantities.

VEGF is present in breast milk and plays an important role in the development of an infant's digestive system. As a result, anti-VEGF drugs in a nursing mother raise concerns about possible adverse events in a developing infant if the drugs were to pass into breast milk and suppress VEGF.

"As retina specialists, we often tell our pregnant or nursing patients that there's a risk of a small amount of these drugs making its way into the breast milk, but we can't be sure," said Dr Rajeev Muni, co-lead author, a vitreoretinal surgeon at St. Michael's and a project investigator at the hospital's Li Ka Shing Knowledge Institute.

"We don't want these patients to lose their vision so we make a decision, despite limited information," added Dr Muni.

Hoping to change this, Dr Muni and Dr Verena Juncal, co-lead author and a retinal fellow at St. Michael's, measured the concentrations of retinal medications in the breast milk of three lactating patients following injection of anti-VEGF therapy.

The team found that the drugs were excreted into the breast milk within the first couple days following injection, with a corresponding reduction in VEGF levels.

They also found that the amount of medication detected in the patient who continued to breastfeed was significantly lower than the other two patients, suggesting that the medication was constantly excreted and ingested by the infant.

“These results definitively show us that the drug reaches the breast milk,” said Dr Juncal. “We realise that some readers may question the small sample size, but if the drug reaches the breast milk in three patients, it’ll reach in 30 patients because it’s the same biological process.”

As the first study to evaluate the presence of Health Canada approved anti-VEGF therapy in human breast milk, these results provide a resource for ophthalmologists and retina specialists counselling pregnant and nursing patients.

“I’m comforted knowing that other pregnant or nursing mothers with retinal diseases will have the information needed to make an educated decision about whether to consider nursing while receiving these medications,” said Lisa, one of the three study participants, who didn’t want to reveal her surname.

## **Dengue**

**War against dengue: Kejriwal asks people to check mosquito breeding (The Tribune: 20190916)**

<https://www.tribuneindia.com/news/delhi/war-against-dengue-kejriwal-asks-people-to-check-mosquito-breeding/833345.html>

Govt to rope in 3,000 RWAs to intensify ‘10 Hafte 10 Baje 10 Minute’ campaign

Intensifying Delhi Government's '10 Hafte 10 Baje 10 Minute' campaign, Chief Minister Arvind Kejriwal and his Cabinet colleagues on Sunday visited some parts of the city, urging people to check mosquito breeding in their surroundings.

After a visit to West Delhi's Tri Nagar area, Kejriwal claimed that data showed the campaign was "successful" so far and cases of dengue were on the decline.

Under the campaign launched on September 1, people are expected to devote 10 minutes at 10 AM every Sunday for draining stagnant water that could lead to breeding of mosquitoes. The campaign will conclude in mid November.

"I am very happy that this campaign has been successful so far and dengue has been controlled for the time being. There were many cases of dengue 3-4 years ago. As per cycle of the disease it was expected to recur on big scale this year but data show dengue has significantly declined in Delhi," said Kejriwal.

The dengue mosquito has a range of 200 metres so if people check their houses and encourage their neighbours to do it, Delhi will be saved from the disease, he said in Tri Nagar.

Deputy Chief Minister Manish Sisodia also inspected his house and visited his constituency to ask people to follow the suit. Health Minister Satyendar Jain visited Paschim Vihar area of his constituency Shakurbasti to spread awareness.

The Delhi Government is planning to partner with over 3,000 RWAs across the Capital as part of the campaign for more intensive inspections in residential areas of the city.

The number of dengue cases recorded till September 7 stood at 122, with 30 of these reported in the current month and 52 in August. Last year, 2,798 dengue cases and four deaths were recorded by the South Delhi Municipal Corporation (SDMC), which tabulates the data on vector-borne diseases in the city.

Both the Delhi Government and the local bodies have been making efforts to raise awareness among the people on precautions to ensure that there is no breeding of mosquito larvae in and around their houses. — PTI

AAP MLAs tour colonies

Several AAP MLAs toured residential colonies in their assemblies here on Sunday to spread awareness about dengue. The MLAs urged residents to participate in the campaign, launched by the CM, and save the city from dengue outbreak. More than 200 events were held across the city by MLAs, councillors and party leaders, the Aam Aadmi Party (AAP) said in a statement.

## **Physical Fitness**

### **Physical fitness linked to better brain function (Medical News Today: 20190916)**

<https://www.medicalnewstoday.com/articles/326310.php>

The largest and most detailed study of its type concludes that there are links between physical fitness and improved cognitive performance. The researchers also show that this boost in mental powers is associated with white matter integrity.

A new study tests the theory that a fit body goes with a fit mind.

Over recent years, there has been a great deal of research into how bodily fitness might influence the mind.

For instance, studies have concluded that physical fitness can reduce the risk of dementia, relieve depressive symptoms, and more.

There is also evidence that physical activity boosts the cognitive performance of healthy individuals, people of different ages, and participants with cognitive impairments.

Similarly, some studies have shown positive links between physical fitness and changes in brain structure.

The authors of the latest study in this field, who published their findings in Scientific Reports, note that previous studies had certain limitations.

In some cases, for instance, they did not account for variables that could play an important role.

As an example, researchers could associate low levels of physical fitness with higher blood pressure. If a study finds that high physical fitness has links with cognitive abilities, scientists could argue that in fact, it is lower blood pressure that boosts cognitive power.

The same could apply for several factors that have links with fitness, such as body mass index (BMI), blood glucose levels, and education status.

Also, most studies concentrate on only one marker of mental performance at a time, such as memory.

As the authors of the current study explain, "studies investigating associations between [physical fitness], white matter integrity, and multiple differential cognitive domains simultaneously are rare."

A fresh look at fitness and the brain

The latest experiment, carried out by scientists from University Hospital Muenster in Germany, attempts to fill in some of the gaps. Using a large sample of healthy people, the scientists retested the links between physical fitness, brain structure, and a wide range of cognitive domains.

They also wanted to ensure that they accounted for as many confounding variables as possible. Additionally, the scientists wanted to understand whether the link between cognitive ability and physical fitness was associated with white matter integrity.

White matter in the brain relays messages between disparate parts of the brain and coordinates communication throughout the organ.

To investigate, the researchers took data from the Human Connectome Project, which includes MRI brain scans from 1,206 adults with an average age of 28.8.

How can mouthwash interfere with the benefits of exercise?

A recent study concludes that antibacterial mouthwash might limit the cardiovascular benefits of exercise.

Some of these participants also underwent further tests. In total, 1,204 participants completed a walking test in which they walked as quickly as they could for 2 minutes. The researchers noted the distance.

A total of 1,187 participants also completed cognitive tests. In these, the scientists assessed the volunteers' memory, reasoning, sharpness, and judgment, among other parameters.

'Surprising' results

Overall, the researchers showed that individuals who performed better in the 2-minute walking test also performed significantly better in all but one of the cognitive tasks.

Importantly, this relationship was significant even after controlling for a range of factors, including BMI, blood pressure, age, education level, and sex.

The researchers also associated this cognitive improvement with higher levels of fitness with improvements in the structural integrity of white matter. The authors conclude:

"With the present work, we provide evidence for a positive relationship between [physical fitness] and both white matter microstructure as well as cognitive performance in a large sample of healthy young adults."

"It surprised us to see that even in a young population cognitive performance decreases as fitness levels drop," says lead researcher Dr. Jonathan Repple.

Dr. Repple continues, "We knew how this might be important in an elderly population, which does not necessarily have good health, but to see this happening in 30-year-olds is surprising."

"This leads us to believe that a basic level of fitness seems to be a preventable risk factor for brain health."

More questions

The current study has many strengths, not least the extensive database of MRIs. Dr. Repple explains that "normally when you are dealing with MRI work, a sample of 30 is pretty good, but the existence of this large MRI database allowed us to eliminate possibly misleading factors and strengthened the analysis considerably."

However, because researchers carried out the tests at one point in time, it is not possible to see how fitness and cognitive ability changes over time. It is also not possible to say that becoming fitter causes a boost in cognitive ability.

Future studies will need to ask whether increasing an individual's level of fitness also increases cognitive ability.

Also, by design, the current study only investigated healthy young people. How this interaction might be different in older populations or people with mental health conditions will require further work.

Taking previous studies into account, it is becoming increasingly clear that there are strong links between physical fitness and mental agility.

## **Hearing**

**Hearing aids lower the chance of dementia, depression, and falling (Medical News Today: 20190916)**

<https://www.medicalnewstoday.com/articles/326340.php>

A new study finds that hearing devices benefit older adults in multiple ways, from physical safety to brain health.

A recent study investigates the wide ranging impacts of wearing hearing aids.

Almost 1 in 4 people in the United States aged 65–74 have disabling hearing loss. In people over 75, the figure is 1 in 2.

Nonetheless, many people who would benefit from wearing a hearing aid do not wear them.

Experts have linked hearing loss to an increased likelihood of dementia, depression and anxiety, walking problems, and falling.

Now, a study in the Journal of American Geriatrics Society finds that using a hearing device makes these problems significantly less likely to occur.

Study lead Elham Mahmoudi, Ph.D., from the University of Michigan, explains:

"We already know that people with hearing loss have more adverse health events and more co-existing conditions, but this study allows us to see the effects of an intervention and look for associations between hearing aids and health outcomes."

She continues, "Though hearing aids can't be said to prevent these conditions, a delay in the onset of dementia, depression and anxiety, and the risk of serious falls could be significant both for the patient and for the costs to the Medicare system."

Looking into the data

The study, carried out at the University of Michigan Institute for Healthcare Policy and Innovation, looked at data from nearly 115,000 individuals who were over 66 years old and had hearing loss.

All the participants also had insurance through a Medicare Health Maintenance Organization (HMO).

The researchers chose Medicare HMOs because, unlike standard Medicare, they often cover hearing aid costs for members who have received a diagnosis with hearing loss from an audiologist.

The scientists tracked the participants' health from 1 year before their diagnosis to 3 years afterward. This allowed researchers to pinpoint any new diagnoses of dementia, depression, anxiety, or fall injuries.

Protein discovery could lead to new hearing loss treatments

A recent study identifies two proteins that help organize the development of cells that are essential for hearing.

The researchers noted significant differences between the outcomes of those with hearing loss who did wear a hearing aid compared with those who did not.

Wearing a hearing aid reduced:

- the relative risk of being diagnosed with dementia — including Alzheimer's — by 18%
- the relative risk of being diagnosed with depression or anxiety by 11%
- the relative risk of fall-related injuries by 13%

Previous research has looked into the links between hearing loss and dementia and mental health conditions. Some experts believe that social isolation, which sometimes comes with hearing loss, might result in less stimulation for the brain and, ultimately, cognitive decline.

Others have suggested that the deterioration of nerve impulses in the ear may be an indicator of a wider neural degeneration already underway.

Who gets a hearing aid?

The secondary goal of the study was to determine the adoption rate of hearing devices among different demographic groups.

Overall, the study found that just 12% of those diagnosed with hearing loss decide to use a hearing aid. The authors identified differences in adoption rates among different sexes, racial and ethnic backgrounds, and geographic locations.

- 13.3% of men with hearing loss in the United States are likely to acquire a hearing aid, as opposed to 11.3% of women with hearing loss.
- 13.6% of white participants with hearing loss received hearing aids, 9.8% of African Americans, and 6.5% of people with Latino heritage.

Clear as a bell

The Food and Drug Administration (FDA) has approved over-the-counter hearing aids for sale in 2020 in an effort to make hearing aids more widely available to people with mild-to-moderate hearing loss.

For older people with hearing loss, though, the study documents the value of acquiring a hearing aid. Mahmoudi says:

"Correcting hearing loss is an intervention that has evidence behind it, and we hope our research will help clinicians and people with hearing loss understand the potential association between getting a hearing aid and other aspects of their health."

## **Bone**

### **Calorie restriction plus exercise can make bones more fragile (Medical News Today: 20190916)**

<https://www.medicalnewstoday.com/articles/326344.php>

Calorie restriction, especially in combination with exercise, can make bones smaller and weaker, according to new research in mice.

Can restricting calories and exercising make bones smaller and weaker?

In contrast, exercising while on a full calorie diet can benefit bone health, say the researchers.

They describe their investigation and its results in a recent Journal of Bone and Mineral Research paper.

"These findings were somewhat of a surprise for us," says senior study author Dr. Maya Styner, an associate professor of medicine at the University of North Carolina at Chapel Hill.

"Past studies in mice," she continues, "have shown us that exercise paired with a normal calorie diet, and even a high calorie diet, is good for bone health."

"Now we're learning this isn't true for exercise along with a calorie restricted diet," she adds.

Bone health and osteoporosis

Bone is not an inert material but very much alive; it is continually renewing itself. During childhood, new bone formation happens faster than removal of old bone, resulting in bigger, heavier, and denser bones.

Bone formation continues outpacing bone removal until around the age of 20–30 years, during which time it peaks in most people.

Osteoporosis: Could probiotics protect bone health?

Consuming a probiotic can increase a key protein for bone growth through a complex effect involving gut bacteria and bone marrow.

Most people can minimize the bone loss that begins around their third decade of life.

They can do this by getting regular exercise, not smoking, not drinking too much alcohol, and ensuring that they have a sufficient amount of vitamin D and calcium in their diet.

Osteoporosis occurs when bone formation is too slow, when removal is too quick, or both. The condition, which tends to affect females more often than males, weakens bones and makes them more likely to fracture.

According to the Centers for Disease Control and Prevention (CDC), osteoporosis affects around 25% of females and 5% of males aged 65 and older.

Scientists suggest that one reason osteoporosis is more common in females is because their bones tend to be smaller and thinner. Another reason could be because menopause brings on a sudden drop in estrogen, a hormone that can protect bone.

Dr. Styner suggests that the new findings could be particularly relevant for women because as they age, their bone health starts to deteriorate naturally.

"Your calorie intake and exercise routine can have a great impact on the strength of your bones and your risk [of] break or fracture," she cautions.

Calorie restriction and exercise

In their investigation, Dr. Styner and colleagues focused on bone marrow fat. Scientists do not fully understand how this type of fat works. They suspect that it is harmful to bones in humans and other mammals.

Previous studies have suggested that lower levels of bone marrow fat are usually an indication of good bone health.

In earlier work, Dr. Styner had examined how calorie consumption relates to bone marrow fat and how exercise might influence this link.

Those studies showed, for example, that levels of bone marrow fat go up when excess calorie consumption leads to obesity.

They also found that when mice of a normal weight and mice with obesity exercised, it caused a drop in their bone marrow fat and improved their bone density.

The purpose of the new study was to find out what happens to bone marrow fat and bone health during calorie restriction.

The researchers split mice into two groups. They fed one group a regular diet and the other a calorie restricted diet comprising 30% less calories than the regular diet.

The calorie restricted mice received supplements of minerals and vitamins so that these nutrient intakes matched those of the mice on the normal diet.

The team then split the mice again, into sedentary and exercise subgroups, and monitored them for 6 weeks.

This created four groups of mice on four different patterns of diet and exercise:

regular diet without exercise

calorie restricted diet without exercise

regular diet with running exercise

calorie restricted diet with running exercise

'Negative effects on bone health'

The results showed that although the calorie restricted mice lost weight, their bone marrow fat levels went up significantly. These mice also experienced a decrease in bone quantity.

The researchers conclude that the bone loss in the calorie restricted mice was due to calorie reduction alone and not lack of nutrients, since the mice had the same vitamin and mineral intake as their regular diet counterparts.

The team found that, as expected from previous studies, adding exercise to calorie restriction led to a reduction in bone marrow fat. However, it unexpectedly also led to a reduction in overall quantity and quality of bone.

The researchers were surprised to find that under conditions of calorie restriction, exercise appears to make bones more fragile — not more robust.

They are already planning further investigations to better understand the function of bone marrow fat. In particular, they wish to learn about the underlying mechanisms that cause diet and exercise to produce the effects that they found.

"Looking at this from a human perspective, even a lower calorie diet that is very nutritionally sound can have negative effects on bone health, especially paired with exercise."

Dr. Maya Styner

## **E-cigarette**

**E-cigarette vapors, even without nicotine, may harm lungs (Medical News Today: 20190916)**

<https://www.medicalnewstoday.com/articles/326336.php>

A recent study in mice might shed some light on why electronic cigarettes (e-cigarettes) are harmful, even when there is no nicotine present in the vapors themselves.

A new study may offer valuable insights into the effects of vaping.

A study out of the Baylor College of Medicine in Houston, TX, found that chronic exposure to e-cigarette vapors, even without nicotine, could negatively impact normal lung function.

This exposure could also have ramifications for how the body responds to infections, as it can make immune cells in the lungs less able to respond to viruses.

The findings appear in *The Journal of Clinical Investigation*.

As the authors of the new paper explain, some studies have suggested that the chemicals in e-cigarettes are harmful to the health of those who inhale them. Others, however, have noted that in comparison with regular tobacco cigarettes, these products are safer.

"These opposing views on the safety of e-cigarettes prompted one of my graduate students, Matthew Madison, to investigate the effects of chronic exposure to e-cigarette vapors and to conventional tobacco smoke on murine lung function," says corresponding author Dr. Farrah Kheradmand, a pulmonologist and professor of medicine at the Baylor College of Medicine.

"We also looked at the effect of vapors or smoke on the function of immune cells called macrophages residing within the lung. These cells represent a first line of defense against viral infections such as those caused by influenza virus."

#### Vaping solvents, nicotine, and lung health

The study comprised four groups of mice. The researchers exposed one group to e-cigarette type vapors that contained nicotine and other vaping solvents, such as propylene glycol and vegetable glycerin.

They exposed another group to the same solvents but without the nicotine. They exposed a third group to tobacco smoke. The fourth group had access to clean air.

#### How do nicotine-free e-cigarettes affect blood vessels?

New research shows how e-cigarettes affect endothelial function.

To mimic the amount of time a person would inhale these substances for, the researchers exposed the mice to them for 4 months. This roughly corresponds to a person smoking from their teenage years through their fifth decade of life.

There were no surprises when the researchers examined the mice they exposed to cigarette smoke: They experienced severe lung damage and inflammation comparable with emphysema. This is similar to what happens in humans when they smoke tobacco for a long period of time.

#### Surprising findings

However, the researchers were surprised to learn that the mice exposed to the vaping solvents that lacked nicotine also had damage to their lungs.

Although it was not the same type of damage they observed in the tobacco smoke-exposed mice, it was still a significant finding. Although there was no emphysema-like illness present, the researchers discovered an abnormal buildup of lipids in the lungs.

This fatty buildup was not exactly from the vaping solvents themselves or any oils present in the fluids. Instead, what occurred was an "abnormal turnover of the protective fluid layer in the lungs."

The researchers found an excessive accumulation of lipids in resident macrophages, which are cells that work to detect and destroy harmful organisms.

This accumulation prevented the macrophages from responding as they normally would to infections. The implication for humans is that an illness would be more likely to have a negative impact than if the person had a healthy population of macrophages.

"In summary, our experimental findings reveal that, independent of nicotine, chronic inhalation e-cigarette vapors disrupts normal murine lung function and reduces the ability of resident immune cells to respond to infection, increasing the susceptibility to diseases such as influenza."

Dr. Farrah Kheradmand

"Our experimental findings share similarities with previous multiple case reports describing the presence of lipid-laden macrophages in pulmonary fluid from people with e-cigarette associated pneumonia."

The researchers feel that their findings should prompt further investigation into how e-cigarette vapors affect health, even when people do not use nicotine products.