



## DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
Tuesday 20190917

### खानपान

उम्र के हिसाब करें खानपान में जरूरी बदलाव और रहें बीमारियों से कोसों दूर (Dainik Jagran: 20190917)

<https://www.jagran.com/lifestyle/health-healthy-eating-habits-at-your-age-and-stages-19585646.html>

उम्र के हर पड़ाव पर सुपोषण का अपना विशेष महत्व है। उम्र के अनुसार और शारीरिक व मानसिक परिश्रम के मुताबिक पोषक तत्वों की मात्रा में बदलाव होता रहता है। आइए जानते हैं इसके बारे में..

मोदी सरकार - 2.0 के 100 दिन

अगर आप स्वस्थ और लंबा जीवन व्यतीत करना चाहते हैं तो युवावस्था से ही आपको अपने खानपान और जीवनशैली को संतुलित रखना होगा। 18 साल की आयु के बाद उम्र के अनुसार आपके आहार में परिवर्तन की आवश्यकता होती है। हमारा मेटाबॉलिज्म भी उम्र के साथ घटता जाता है और पोषक तत्वों की जरूरतें भी बदलती रहती हैं।

हमारा भोजन प्रमुख पोषक तत्वों की दैनिक जरूरतों को पूरा करे, जिससे हमारे शरीर का रोग प्रतिरोधक तंत्र मजबूत बना रहे, हड्डियां और मांसपेशियां नुकसान से बची रहें, आंखों की रोशनी सुरक्षित रहे और हमारी कोशिकाएं फ्रीरेडिकल्स की क्षति से बची रहें। आइए जानते हैं कि आपका खानपान उम्र के मुताबिक कैसा होना चाहिए..

20 से 30 साल तक

यह जीवन का बहुत महत्वपूर्ण और चुनौती भरा समय होता है। जब अनेक लोग अपनी पहली नौकरी के लिए संघर्ष कर रहे होते हैं और कुछ उच्च शिक्षा प्राप्त कर रहे होते हैं। वहीं कुछ लोग अपने व्यक्तिगत संबंधों को कायम करने में लगे होते हैं। ऐसे में स्वास्थ्य को नजरअंदाज करना स्वाभाविक है। शोध से यह भी पता चला है कि इस उम्र के लोगों के भोजन में मुख्यतः प्रोटीन, आयरन, कैल्शियम और फोलिक एसिड की कमी होती होती है। इस समय के दौरान आपकी हड्डियों का घनत्व बन रहा होता है। इसी वजह से कैल्शियम आहार का महत्वपूर्ण भाग होना चाहिए। बींस हरी पत्तेदार सब्जियां और और फली आदि भी हड्डियों को मजबूत बनाने में मदद करती हैं।

**फोलेट का महत्व:** यह डीएनए को बनाने और इसे दुरुस्त रखने के लिए जरूरी है। पुरुषों और महिलाओं को प्रतिदिन 0.4 मिलीग्राम फोलेट की जरूरत पड़ती है।

**इन्हें जरूरी है बी विटामिन:** जो महिलाएं गर्भवती होना चाहती हों, उन्हें बी विटामिन पर अधिक ध्यान देना चाहिए। इसके अलावा उन्हें दलिया पालक, ब्रोकोली, बींस और दालों को अपने आहार में वरीयता देनी चाहिए। प्रसव उम्र की महिलाओं को एक मल्टी विटामिन भी लेना चाहिए जो 04 से 1 मिलीग्राम फोलिक एसिड की आपूर्ति करे।

**आयरन आवश्यक:** यह अच्छे मेटाबॉलिज्म के लिए जरूरी है। मांसपेशियों में ऑक्सीजन को स्थानांतरित करना आयरन का एक प्रमुख कार्य है। इसके अलावा आयरन शरीर में रक्त को बढ़ाता है और हार्मोन को संतुलित रखता है। आयरन की कमी से थकान महसूस होती है। दाल, सोयाबीन, किशमिश और पालक आयरन के अच्छे स्रोत हैं। 30 साल की उम्र से मांसपेशियों में उम्र से संबंधित क्षति की शुरुआत होने लगती है और मेटाबॉलिज्म धीमा होने लगता है। इस वजह से कैलोरी की आवश्यकता कम होने लगती है। अगर हम 30 या 40 में 20 के दशक जैसा खाने का पैटर्न रखें तो वजन बढ़ने की संभावना बढ़ जाती है।

30 से 40 के दौरान

इस उम्र के मध्य अत्यधिक चिकनाईयुक्त खाद्य पदार्थ स्टार्चयुक्त खाद्य पदार्थ, नमक, मिठाई, मीठे पेय पदार्थ अत्यधिक वसा और बहुत ज्यादा कैलोरी वाली वस्तुओं को कभी कभार लेना चाहिए। फाइबर युक्त भोजन लें। सब्जियों में फाइबर पर्याप्त मात्रा में पाया जाता है। खाद्य पदार्थों में ऊपर से नमक न डालें। प्रोटीन की मात्रा बढ़ाएं। प्रतिदिन 50 से 60 ग्राम प्रोटीन लें। अधिक वसा, मैदा, मीठा और ज्यादा नमकीन खाद्य पदार्थ खाने से आगे चलकर अनेक शारीरिक समस्याएं-जैसे हाई ब्लड प्रेशर, डायबिटीज और हाजमे से संबंधित समस्याएं उत्पन्न हो सकती हैं। शोध से यह बात भी प्रमाणित होती है कि 5 से 10 प्रतिशत वजन कम करके डायबिटीज और हाई ब्लड प्रेशर जैसी

समस्याओं के जोखिम को कम किया जा सकता है। इस उम्र में एंटीऑक्सीडेंट का भी बहुत महत्व है। इसके लिए पर्याप्त मात्रा में फलों और सब्जियों का सेवन करना चाहिए। जैसे टमाटर, पपीता, संतरा, चेरी और स्ट्राबेरी आदि।

40 से 50 के मध्य

इस दौरान अधिकतर लोगों में वजन बढ़ने से हाई ब्लड प्रेशर और हृदय रोग होने का जोखिम बढ़ जाता है। अपने वजन को संतुलित रखने के लिए और हड्डियों को मजबूत रखने के लिए प्रतिदिन व्यायाम करें। इस समय के दौरान भोजन की मात्रा को कम करके उसकी गुणवत्ता पर अधिक ध्यान दें। तला हुआ खाना और ज्यादा मिर्च मसाले वाला खाना कम करें। भोजन समय से करें। अगर शराब या सिगरेट का सेवन करते हैं, तो इन लतों को बंद कर दें। खाने में तेल और नमक का इस्तेमाल कम से कम करें।

**एड्स**

**साल- दर साल बढ़ रहे एड्स रोगी (Dainik Jagran: 20190917)**

<https://www.jagran.com/uttar-pradesh/sidharth-nagar-special-story-19584312.html>

जिले में जन जागरूकता अभियान चलाए जाने के बावजूद साल दर साल एड्स मरीजों की संख्या में इजाफा हो रहा है। रोकथाम के लिए स्वास्थ्य विभाग की ओर से किया गया उपाय असफल साबित हो रहा है। पि

सिद्धार्थनगर : जिले में जन जागरूकता अभियान चलाए जाने के बावजूद साल दर साल एड्स मरीजों की संख्या में इजाफा हो रहा है। रोकथाम के लिए स्वास्थ्य विभाग की ओर से किया गया उपाय असफल साबित हो रहा है। पिछले तीन सालों में आंकड़ा घटने के बजाय बढ़ा है। सर्वाधिक मरीज डुमरियागंज क्षेत्र के हैं। मरीजों की संख्या इस वक्त 4300 के पार पहुंच गई है। 958 रोगी मौत के गाल में समा चुके हैं। जिले की सीमा नेपाल से जुड़े होने के कारण यह नागरिकों के लिए खतरे की घंटी है।

सरकारों ने एचआइवी के रोकथाम के लिए तमाम अभियान चलाया। रोग से बचने के उपायों की जानकारी उपलब्ध कराने का दावा करती हैं। बावजूद इसके जनपद में इसका असर देखने को नहीं मिल रहा है। यहां पिछले तीन वर्षों में मरीजों की संख्या कम होने के बजाय लगातार बढ़ी है। रोगियों की बढ़ती संख्या से स्वास्थ्य विभाग के माथे पर चिता की लकीर खींची है। जिले के रोगियों को संयुक्त जिला अस्पताल के एआरटी सेंटर से दवा उपलब्ध कराई जाती है।

314 रोगी ले रहे गैर जनपद से दवा

जिले में पंजीकृत 314 रोगी गैर जनपद से दवा ले रहे हैं। इसके पीछे अहम कारण है कि यह रोजगार के सिलसिले में गैर प्रांतों रहते हैं। पंजीकृत मरीजों के दिल्ली, मुम्बई, गुजरात, सूरत, कोलकाता जैसे शहरों में होने की जानकारी विभाग के पास है।

क्या कहते हैं जिम्मेदार

रोग न फैले इसके लिए सबसे अहम बचाव है। विभाग समय-समय पर अभियान चलाकर लोगों को जागरूक करता है। बाहर रहकर जीविकोपार्जन करने वालों में यह रोग अधिक पाया जा रहा है। सभी को समय से दवाएं एवं काउंसलिंग कराई जाती है।

डॉ आरके मिश्रा, सीएमओ

पिछले तीन सालों में यह है मरीजों का आंकड़ा-इनसेट

वर्ष चिह्नित नए रोगी

2016 432

2017 427

2018 458

## शरीर में खतरनाक रसायन

एम्स में 32 मरीजों के शरीर में मिले खतरनाक रसायन, बना सकते हैं जानलेवा बीमारी का शिकार  
(Amar Ujala: 20190917)

<https://www.amarujala.com/delhi/dangerous-chemicals-found-in-32-out-of-200-patients-ashram-news-noi4617359158?src=hl>

खतरनाक रसायन मिलने के बाद डॉक्टर जल्द ही इन मरीजों की काउंसलिंग करेंगे

जिन मरीजों के शरीर में घातक रसायन मिल रहे हैं, उन्हें अब डॉक्टर एंटी टॉक्सिन डोज दी जा रही है

डॉक्टरों का कहना है कि इन रसायनों का शरीर पर बुरा असर पड़ता है

अखिल भारतीय आयुर्विज्ञान संस्थान (एम्स) ने पहली बार शरीर में घातक रसायनों का पता लगाया है। पिछले एक महीने के भीतर एम्स ने अत्याधुनिक मशीनों के जरिए करीब 200 मरीजों के रक्त व यूरिन जांच की थी। इनमें से 32 रोगियों के शरीर में आर्सेनिक, लेड, फ्लोराइड, क्रोमियम और मरक्युरी की काफी मात्रा मिली है।

इनमें से ज्यादातर मरीज दिल्ली-एनसीआर क्षेत्र के हैं, जबकि कुछ यूपी और बिहार से भी हैं। ये सभी एम्स के विभिन्न विभागों की ओपीडी में इलाज कराने आए थे। डॉक्टरों ने इनके लक्षणों में भिन्नता देखी तो इन्हें हाल ही में स्थापित हुई विषाक्तता निदान केंद्र की अत्याधुनिक प्रयोगशाला में भेजा गया।

खतरनाक रसायन मिलने के बाद डॉक्टर जल्द ही इन मरीजों की काउंसलिंग करेंगे और इनके शरीर में इन रसायनों के आने का स्रोत पता लगाएंगे। इनके घरों से पेयजल का सैंपल लेकर एम्स एक अलग रिपोर्ट तैयार करेगा।

डॉक्टरों का कहना है कि इन रसायनों का शरीर पर बुरा असर पड़ता है। इनसे गुर्दा, लिवर निष्क्रिय होने के अलावा कैंसर जैसी जानलेवा बीमारियां तक पनपने लगती हैं।

सोमवार को एम्स के निदेशक डॉ. रणदीप गुलेरिया ने बताया कि देश में अब तक टॉक्सिन की जांच की कोई सुविधा नहीं थी। कुछ ही समय पहले एम्स में रोग विषयक पारिस्थितिक विषाक्तता निदान एवं

अनुसंधान सुविधा केंद्र की स्थापना की गई थी। इसे ईकोटोक्सिलॉजी भी कहा जाता है। इसकी स्थापना में प्रोफेसर ए शरीफ और उनकी टीम का विशेष योगदान रहा।

एम्स के डॉ. जावेद ने बताया कि अक्सर ओपीडी में मरीजों के लक्षणों का अंदाजा नहीं लगाया जा सकता। शरीर में टॉक्सिन का पता लगाने के उद्देश्य से ही देश में पहली बार इस तरह का प्रयोग किया गया है।

इसके काफी सुखद परिणाम भी देखने को मिल रहे हैं। जिन मरीजों के शरीर में घातक रसायन मिल रहे हैं, उन्हें अब डॉक्टर एंटी टॉक्सिन डोज दे रहे हैं, ताकि उनके शरीर में इसका प्रभाव कम किया जा सके।

## Diabetes (Hindustan: 20190917)

[http://epaper.livehindustan.com/imageview\\_257562\\_70297350\\_4\\_1\\_17-09-2019\\_0\\_i\\_1\\_sf.html](http://epaper.livehindustan.com/imageview_257562_70297350_4_1_17-09-2019_0_i_1_sf.html)

# चेतावनी : मधुमेह का स्तर कम होने पर ब्रत तोड़ दें

नई दिल्ली | स्कन्द विवेक धर

नवरात्र दो हफ्ते में शुरू हो रहे हैं। इस दौरान उपवास रखने की सोच रहे मधुमेह रोगियों को पहली बार डॉक्टरों ने चेताया है कि शुगर का स्तर 70 एमजी से कम होते ही वे उपवास तोड़ दें। इस संबंध में उन्होंने बकायदा दिशा-निर्देश तैयार किए हैं।

इन दिशा-निर्देशों को जर्नल ऑफ एसोसिएशन ऑफ फिजिशियन ऑफ इंडिया में प्रकाशित किया गया है। इसके मुताबिक, उपवास के दौरान बीच-बीच में ब्लड शुगर जांचते रहना

चाहिए। परिजनों को भी बीमारी की जानकारी देनी चाहिए। टाइप-2 मधुमेह के ऐसे मरीज जिनका ब्लड शुगर स्थिर रहता है, वे उपवास कर सकते हैं लेकिन डॉक्टरों की सलाह पर दवा की डोज में कुछ बदलाव करें। उपवास से पहले अप्रसंस्कृत अनाज, फल, नट्स, दालें और प्रोटीन युक्त आहार लेने चाहिए, ताकि शरीर को ऊर्जा मिलती रहे। यदि उपवास के दौरान पानी नहीं पीना है जो ब्रत से पहले पर्याप्त मात्रा में तरल पदार्थों का सेवन करें। उपवास के बाद चावल, ब्रेड जैसे पदार्थों का उपयोग करें।

**6.92**

करोड़ भारतीय मधुमेह रोगी थे वर्ष 2015 में

**7.29**

करोड़ भारतीय मधुमेह रोगी थे साल 2017 में

**9.8**

करोड़ भारतीयों के 2030 तक मधुमेह से पीड़ित होने का अनुमान

- 51.1 करोड़ लोगों के विश्वभर में 2030 तक मधुमेह पीड़ित होने का अनुमान
- 12 साल में दुनिया में मधुमेह रोगियों की संख्या 20 फीसदी से ज्यादा बढ़ने की आशंका

**40.6**

करोड़ लोग विश्व में मधुमेह का शिकार थे साल 2018 में

## त्योहार के अनुसार सलाह

- दिन में तीन बार मेटाफॉर्मिन लेने वाले नवरात्र या रमजान में उपवास के दौरान रात में कुल डोज का दो-तिहाई व सुबह एक-तिहाई लें।
- कसवाचौथ, एकादशी और सोमवार जैसे एक दिन के उपवास में मरीजों को दिन की खुराक नहीं लेनी चाहिए
- जैन धर्मावलंबियों को मेटाफॉर्मिन को पूरी तरह छोड़ने एवं दवा के डोज में फेरबदल न करने की सलाह दी है।
- इनसुलिन लेने वाले मरीजों के लिए सभी प्रकार के उपवासों में अलग-अलग मात्रा में इनसुलिन की डोज कम करने की सलाह दी गई है।



**70**

एमजी से कम शुगर स्तर होने पर उपवास करना खतरनाक

## Dengue (Hindustan: 20190917)

[http://epaper.livehindustan.com/imageview\\_257579\\_70304696\\_4\\_1\\_17-09-2019\\_18\\_i\\_1\\_sf.html](http://epaper.livehindustan.com/imageview_257579_70304696_4_1_17-09-2019_18_i_1_sf.html)

# जानलेवा डेंगू को फैलने से रोकेगा प्रतिरोधी मच्छर

**हनोई।** इस साल दक्षिण-पूर्व एशियाई देशों फिलीपींस, वियतनाम, मलेशिया, म्यांमार और कंबोडिया में डेंगू के कारण भयावह स्थिति देखी गई। विशेषज्ञों ने

इसके लिए बढ़ते तापमान और बचाव के पर्याप्त उपाय नहीं होने को जिम्मेदार माना। वैज्ञानिक डेंगू से निपटने के लिए डेंगू-प्रतिरोधी मच्छर पैदा करने के लिए

शोध कर रहे हैं। उम्मीद जताई जा रही है कि इस बीमारी से अब निपटा जा सकेगा। मच्छर जनित बीमारियों से निपटने के लिए वैज्ञानिक वर्ल्ड मॉस्किटो प्रोग्राम के

तहत काम कर रहे हैं। नर और मादा एडीज मच्छरों को जंगल में छोड़े जाने से पहले रोग प्रतिरोधी बैक्टीरिया वोल्बाचिया से संक्रमित किया जाता है।

## Fight against drugs on, but no decisive shot yet (The Tribune: 20190917)

<https://www.tribuneindia.com/news/fight-against-drugs-on-but-no-decisive-shot-yet/833497.html>

As the government completes half of its five-year term, a review of its performance on various fronts

The crackdown has targeted peddlers, but 'big fish' seem to have evaded it.

The first half of the five-year term of the Capt Amarinder Singh government witnessed a multi-level campaign against the drug abuse and smuggling. While the enforcement agencies have been able to expose many layers of the network, a decisive blow needed to break the nexus between smugglers, officials and influential persons is yet to be witnessed.

New challenges in the form of smuggling of South American cocaine into the state, coupled with increasing attempts from across the border to push in heroin into Punjab and blatant misuse of pain killers like tramadol stare the government in the face.

The Congress, which had promised to end the drug menace within a month after taking over the reins of the state, had a hard time combating it as inter-department rivalry, including open confrontation between senior officials, derailed the process for a considerable time. The

process led to shifting of first chief of the STF against drugs, Harpreet Sidhu, out of the force, but the government had to bring him back.

The Opposition parties have been regularly criticising the government for claiming success just by cracking down on small-time peddlers and addicts. They contend that only a few gangs have been busted, but the proverbial “big fish” among the smugglers is yet to be netted in.

ADGP Pramod Bhan, a spokesperson for the anti-drug STF disagrees. He says as per their parameters, any smuggler arrested with more than 3 kg of heroin is a big fish. “We have arrested about 175 such high-profile accused. The STF has been improvising its strategy based on new challenges. We have recently launched a 360 degree offensive against drug abuse. This includes enforcement, de-addiction and prevention. Nearly 5.27 lakh volunteers are taking part in the buddy system launched to help treatment of addicts and preventing their relapse into addiction. As many as 181 Out-Patient Opioid Assisted Treatment (OOAT) centres are functional to provide modern treatment to the addicts.

“The Union Government too now seems to have started actively participating in the fight against drugs. The Narcotics Control Bureau (NCB) functioning under the Centre has increased its staff strength in Punjab from 40 to 120. It also posted a Deputy Director General level officer with a new unit in Amritsar. Earlier, it had one unit based in Chandigarh for all northern states.”

The STF also needs more staff on similar lines. However, it has less than 50 per cent of staff strength against the required force.

More recently, law enforcement agencies, including Punjab Police, STF, Border Security Force (BSF), Customs Department and the NCB, have joined hands to establish a platform for sharing information and conducting joint operations.

The grey area has been the investigation and protection of key accused or witnesses in NDPS cases. A perfect example of this is the case involving the recovery of 532 kg of heroin from the ICP at Wagah border. The gang included smugglers based in Kashmir as well. While one of the main accused Gurpinder Singh died under mysterious circumstances at an Amritsar jail, another, an SHO, allegedly killed himself at a police station when a team had gone there to arrest him. The case pertained to the biggest ever heroin seizure in Punjab, but the investigation was hampered by these mysterious deaths, with the kingpin remaining untraced.

### Strategy and Action Plan

Daily monitoring of NDPS cases; identification of drug-hit villages; database of peddlers; Targets to cops for arrest of smugglers; listing of notorious chemists in towns and villages; helpline for information on drugs; joint ops with NCB, STF; detention of repeat offenders; e-prison software; forfeiture of property of smugglers.

We have achieved much on demand and supply front. The Centre is impressed with our efforts and has taken steps to adopt the 'Punjab model' in other states. But there are still some challenges for the state police. Dinkar Gupta, DGP

### **450 dengue cases reported, flood-hit areas vulnerable (The Tribune: 20190917)**

<https://www.tribuneindia.com/news/punjab/450-dengue-cases-reported-flood-hit-areas-vulnerable/833510.html>

Health Dept officials worried, say next two months crucial

The number of dengue cases in the state has crossed the 400 mark. Out of these, around 300 cases have been reported in the past one month only. But the next two and half months are crucial, more so this year as the rain fury has left many villages in the state inundated.

According to the state's Integrated Disease Surveillance Programme, the total number of cases have reached to around 450 this season.

However, experts said Punjab's pattern of dengue breakout reveals that over 90 per cent of the cases are reported between mid-September and November end.

For the past four years, on an average, 14,000 cases are being reported and over 10,000 cases each year are reported in October and November. Punjab is one of the worst affected states in the country. Last year proved as one of the worst years as over 15,000 cases were reported.

Meanwhile, experts say the massive floods in some areas can make the situation even worse this year.

One dengue case has been reported from flood-affected Mandala village, forcing medical teams to get to their toes as doctors are seeing danger ahead. The victim has been identified as Manjit Kaur (30).

A senior doctor said a survey was done to check the breeding of mosquitoes in the flood-affected areas earlier, but no disease-causing breed was found. "But now that a case has been reported, we will reinforce the team," one of the officials from the Health Department said.

Now, a survey will be done in the village and it will be checked if anyone else is suffering from dengue.

"Dengue mosquito grows in stagnant water. Normally, this mosquito is found in clean water, but after this case, it is clear that dengue larvae are present in the flood water too," an official said.

On the precautions to be taken, SMO Dr AS Duggal said if anybody was suffering from fever for three-four days, they must visit their nearby medical camp. “We have been advising people living in flooded areas to spread the stagnant water and wear full sleeve clothes and use mosquito repellants. We will be looking at this problem on priority as we are suspecting more cases now,” he said.

## Malaria (Hindustan: 20190917)

[http://epaper.livehindustan.com/imageview\\_257565\\_70564800\\_4\\_1\\_17-09-2019\\_4\\_i\\_1\\_sf.html](http://epaper.livehindustan.com/imageview_257565_70564800_4_1_17-09-2019_4_i_1_sf.html)

# मलेरिया के मामले 250 तक पहुंचे

नई दिल्ली | त्रिष्ठ संवाददाता

राजधानी में इस साल मलेरिया के मामलों की संख्या 250 तक पहुंच गई है। सितंबर के पहले दो हफ्तों में ही मलेरिया के कम से कम 93 मामले सामने आए हैं। सोमवार को जारी दक्षिण दिल्ली नगर निगम (एसडीएमसी) की रिपोर्ट में यह जानकारी सामने आई है।

यह संख्या इस साल किसी भी महीने में सामने आए मलेरिया के मामलों में सबसे अधिक है। 14 सितंबर तक डेंगू के 171 मामले रिपोर्ट किए गए हैं। मलेरिया के मामलों ने पिछले कई हफ्तों से दिल्ली में डेंगू के मामलों को पीछे छोड़

## चिंताजनक

- पिछले दो हफ्तों में ही मलेरिया के 93 मामले सामने आ चुके
- डेंगू पीड़ितों से अधिक मलेरिया के मरीज सामने आए

दिया है। अगस्त में मलेरिया के 56 मामले दर्ज किए गए। वहीं, जुलाई में 54, जून में 35, मई में आठ और अप्रैल में एक मामला मलेरिया का सामने आया था।

**डेंगू के भी मामले बढ़े :** अब तक राजधानी में डेंगू के 79 मामले दर्ज किए गए हैं। अगस्त महीने में 52, जुलाई में

18, जून में 11 और बाकी जनवरी से मई के बीच दर्ज किए गए।

**चिकनगुनिया के 60 मामले सामने आए :** रिपोर्ट के अनुसार, इस साल चिकनगुनिया के कम से कम 60 मामले सामने आए हैं। पिछले साल राजधानी में डेंगू के 2,798 मामले सामने आए थे और चार लोगों की इस वजह से मौत हो गई थी।

दिल्ली सरकार मलेरिया और डेंगू के मामले सामने आने पर विशेष अभियान चला रही है, ताकि इस तरह के मामलों को काबू किया जा सके। सरकार लोगों से घरों और दफ्तरों में गंदा पानी जमा न होने देने की अपील कर रही है।

## **Malaria spreads its wings, 93 cases reported in Sept (The Tribune: 20190917)**

<https://www.tribuneindia.com/news/delhi/malaria-spreads-its-wings-93-cases-reported-in-sept/833882.html>

The number of malaria cases in the Capital this year has mounted to nearly 250 with at least 93 of those being reported in the first two weeks of September, according to a municipal report released on Monday.

This is by far the maximum number of malaria cases recorded in any month this year. The number of dengue cases reported till September 14 stands at 171, according to the South Delhi Municipal Corporation (SDMC), which tabulates the data on vector-borne diseases in the city.

Malaria cases have outstripped those of dengue in the Capital for the past several weeks. As many as 56 malaria cases were reported in August, 54 in July, 35 in June, eight in May and a single case in April. In September, 79 cases of dengue have been recorded, 52 in August, 18 in July, 11 in June, and rest between January and May, the report said.

According to the report, at least 60 cases of chikungunya have also been reported this year. Past year, 2,798 dengue cases and four deaths were recorded by the SDMC.

Both the Delhi Government and local bodies have been making efforts to raise awareness on precautions to ensure that there is no breeding of mosquito larvae around them.

The government has started an anti-dengue campaign '10Hafta 10Baje 10Minute' urging people to inspect their house for any standing water. The campaign — from September 1 and November 15 — to combat dengue has garnered support from several personalities, including cricket legend Kapil Dev, many Bollywood actors and well-known journalists.

Dengue mosquito larvae breed in clear, standing water while those of malaria mosquito thrive even in dirty water. Doctors have advised people to take precautions and ensure that there is no breeding of mosquito larvae around them. — PTI

### Preventive methods

Both the Delhi Government and local bodies have been making efforts to raise awareness on precautions

Mosquito-breeding has been reported in at least 1,19,852 households and 99,448 legal notices have been issued this year

The anti-dengue campaign urges people to inspect their house for stagnant water as dengue mosquito larvae breed in clear, standing water while those of malaria thrive even in dirty water.

**Malaria cases surged as dengue fell till Sept 15, MCD data shows (Hindustan Times: 20190917)**

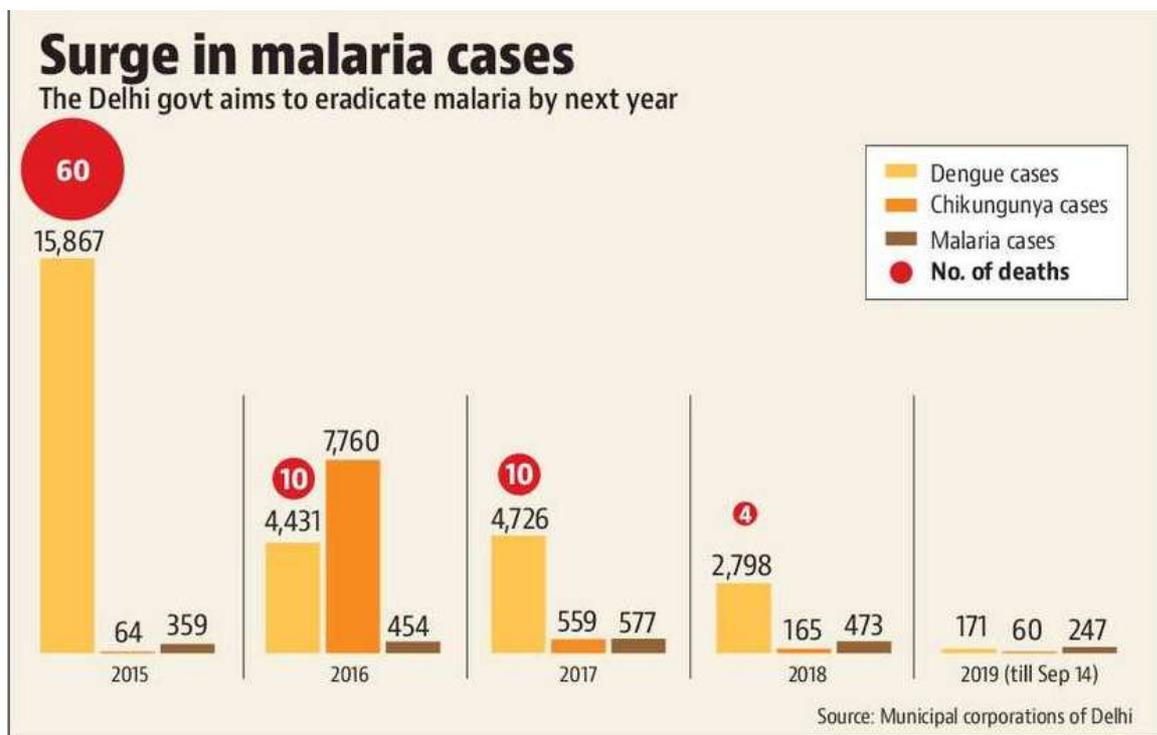
<https://epaper.hindustantimes.com/Home/ArticleView>

New Delhi : Delhi has recorded 247 cases of malaria even as dengue cases fell to 171 till mid-September this year, according to the weekly report by the Delhi municipal bodies.

Dengue is endemic in Delhi and several thousand cases are reported each year. Only a few hundred cases of malaria are reported in Delhi each year and the government aims to eliminate it by next year.

According to the central government’s National Strategic Plan for malaria elimination, Delhi is one of the 20 states that will go for elimination in 2020. Malaria is a mosquito-borne parasitic disease that causes fever, chills, and shivering and can lead to a coma and death if not treated on time.

Sixty cases of chikungunya, another mosquito-borne viral illness, have also been reported in Delhi till September 14, according to the report.



HT Correspondent

The authorities attribute the lower number of dengue cases to the delay and deficiency in rainfall.

“This year, the monsoon was delayed and the rainfall was also less. And, most of the heavy rainfall days were followed by very sunny ones. There wasn’t much water accumulation, that could be the reason for the lower number of cases,” a municipal health officer, on condition of anonymity, said.

The number of dengue cases usually peaks in October and goes down in November.

Chief minister Arvind Kejriwal had said that the number of cases reported last year fell by almost 80% from 2015, which was an outbreak year when nearly 60,000 people had been infected and 60 had died.

To ensure the numbers remain low, the government launched a breeding control drive from September 1. “Ten weeks, at ten o’clock, for ten minutes,” check for mosquito breeding in your homes and your surroundings to prevent diseases like dengue and chikungunya, the CM had said.

The *aedes aegypti*, which transmits diseases like dengue and chikungunya that have become endemic to Delhi, breeds only in clean stagnant water. The life-cycle of the mosquito is about eight to ten days.

“The idea behind the campaign is that if everyone cleans their water sources every seventh day, mosquito breeding can be kept in check,” a Delhi government official said.

The CM wrote to the Union health minister Dr Harsh Vardhan on Monday inviting the Central government to participate in the dengue awareness campaign. “Began this campaign from my home on Sunday, 1st September at 10 AM and so did all my ministerial colleagues, MLAs, councillors and Delhi government officers. We will continue this campaign for the next 10 Sundays. I invite you and all Central government ministers to participate in this campaign. Your participation will inspire many others to participate,” the CM’s letter read.

**Malaria cases higher than last year: report (The Hindu: 20190917)**

<https://www.thehindu.com/news/cities/Delhi/malaria-cases-higher-than-last-year-report/article29435041.ece>

Around 100 cases reported in last two weeks, say civic bodies

The number of malaria cases reported till September 16 this year is higher than those recorded last year, as per data released by the Delhi municipal corporations.

The data reveal that 247 cases of malaria were reported this year till the second week of September. Nearly 100 cases were reported in the past two weeks.

During the same period in 2018, there were 225 cases; 410 in 2017; 286 in 2016; 66 in 2015; and 120 in 2014.

#### Main months

Additionally, a review of data since 2014 shows that a majority of cases of vector-borne diseases are reported in the months of September to December.

For instance, last year, out of 3,436 cases of vector-borne diseases recorded in Delhi, 86.3% (2,965 cases) were reported between September and December.

#### Dengue cases

The number of cases of dengue till September 16 this year stand at 171.

Out of these, up to 80 cases were reported in the last two weeks.

The lowest number of dengue cases in the same period was recorded in 2014 at 55. The highest number of dengue cases in the last five years was reported in 2015 at 15,867.

#### Chikungunya cases

The number of cases of chikungunya is also starting to pick up with 60 cases reported so far this year. Out of these, around 30 were recorded in the last two weeks.

Meanwhile, domestic breeder checkers (DBC) of the three municipal corporations called off their strike after receiving assurances that contract workers would be made permanent after reviewing the vacant posts, said president of Anti Malaria Unity Workers Union Devanand Sharma.

Committees have been formed in this regard in all three unions, he added.

The DBCs are responsible for checking the prevalence of breeding conditions across the city.

So far, the civic bodies have reported that officials concerned have visited up to 1.19 lakh houses.

The South Delhi Municipal Corporation Standing Committee also passed a resolution recommending the creation of additional posts, added benefits and a raise in the salary of DBC workers.

Moving the motion, Leader of SDMC House Kamaljeet Sherawat said that Chief Minister Arvind Kejriwal, who had been praising the drop in the number of dengue cases, a consequence of the work done by DBC workers, would surely provide funding for the same.

## **Immunisation**

### **Mapping of high-risk areas for better vaccination cover (Hindustan Times: 20190917)**

<https://epaper.hindustantimes.com/Home/ArticleView>

New Delhi : The Delhi government's immunisation department will undertake a massive on-ground survey to remap the high risk areas, where vaccine coverage is the lowest. These areas will be categorised according to the reason for vaccine denial to help the government in planning appropriate interventions.

The current map of high-risk areas used by the Mission Indradhanush was developed under the polio programme. It lists 4,400 hard to reach areas or areas that needed more focus such as slum clusters, construction sites, etc. About 98 lakh people live in these areas.

“The previous map was based on the requirements of the polio programme – where more cases were reported or where people could not be reached. The map had been integrated with the immunisation programme. Now, these high-risk areas will be mapped again, depending on six criteria such as the immunisation coverage, rate of refusal, cases of vaccine-preventable diseases etc,” said Dr Suresh Seth, Delhi's state programme officer, immunisation.

The Accredited Social Health Activist (ASHA) and Auxiliary nurse midwife (ANM) associated with the immunisation programme will be trained to collect the mapping data in a state-level workshop next month. The data collection will begin in November.

The data collected will be validated by the district level officials and WHO monitoring teams.

“In Delhi, the vaccine coverage is anywhere between 80 to 90% in most areas, but in the high-risk areas it is usually lower. These areas have the migrant and mobile population who live in temporary hutments and are likely to be missed in the routine programme. A map like this is helpful for the programme and ensures that this does not happen,” said Dr Pradeep Haldar, deputy commissioner, immunisation, ministry of health and family welfare.

Almost 69% of children had been fully immunised in Delhi, according to the data from the fourth round of the National Family Health Survey in 2015-16 (NFHS 4). The report of the immunisation technical support unit (ITSU) put it at 87% in July 2018.

“Now, the number has gone up to 99% according to last month's report of ITSU. It is hard to reach the last 1% and this will help,” he said.

“Once we categorise the high-risk areas by the reason for low vaccination coverage – whether religious belief, fear of adverse reactions, hard to reach areas on Yamuna bank and the

health-seeking the behaviour of the community, we will be able to decide whether we need to send more vaccines to a particular area, whether we need to carry out awareness drives, whether we need to involve religious leaders, etc. This will help us in reaching the last mile,” said Dr Seth.

The vaccine coverage shot up after the government started the intensified Mission Indradhanush Kavach, monthly monitoring of immunisation data, and outreach activities by the ANMs.

“The immunisation cover shot up as a bi-product of the outreach and mapping activities done by the department before launching the Measles-Rubella Vaccine campaign in February this year. Our staff went door to door before the campaign and made people aware of the benefits of immunisation,” said Seth.

## **Healthcare**

**Block at Lok Nayak will get autonomy: Delhi set to get full-fledged orthopaedics institute soon (The Indian Express: 20190917)**

<https://indianexpress.com/article/cities/delhi/block-at-lok-nayak-will-get-autonomy-delhi-set-to-get-full-fledged-orthopaedics-institute-soon-6001378/>

The decision was taken after senior doctors from the hospital requested the department of health to give autonomy for smooth functioning of services.

Odd-even based on findings from foreign countries: Plea in NGT

It will be called Delhi Institute of Orthopaedics (Express Photo/Prem Nath Pandey)

Lying inactive for almost 13 years, the orthopedic block of Lok Nayak Hospital is set to be run as an autonomous institute under Maulana Azad Medical College (MAMC). The facility, to be called the Delhi Institute of Orthopaedics (DIO), will be a specialised centre and will function along the lines of Guru Nanak Eye Centre.

The decision was taken after senior doctors from the hospital requested the department of health to give autonomy for smooth functioning of services. At present, the department is operating from a seven-floor building situated on a campus that has little services to offer. There are 300 beds in the hospital, but only 80 beds are occupied due to unavailability of basic services.

“We moved to this building in 2006 and since then, no attention has been given to this department. We have the infrastructure but not the services meant to be offered to patients. The block remains under-utilised,” said a senior doctor from the hospital.

The block is currently functioning without an ICU and operation theatre, while basic services like OPD and indoor ward facility are available for patients. Confirming the development, Delhi Health Secretary Sanjeev Khirwar told The Indian Express: “The institute will continue to be affiliated with MAMC but will functional separately from Lok Nayak Hospital. The plan is almost approved and we are preparing the final proposal.”

The existing staff has been divided by the hospital administration for the institute. “Once the institute has been set up, more doctors and paramedical staff will be hired as per needs,” said a senior doctor.

Dr Kishore Singh, medical director of Lok Nayak Hospital, said: “New facilities will be introduced for patients, we have given approval for the same.”

According to sources, initial approval for construction of the building was given by the L-G in 1997. Subsequently, it was converted into a hi-tech project and expenditure sanction was increased to Rs 34.40 crore in November 1999. This was further increased to Rs 45.88 crore in February 2008. Several audit reports have raised queries over the hospital’s non-functional block.

At present, MAMC has three associated hospitals — Lok Nayak, GB Pant and Guru Nanak Eye Centre.

## **Air Pollution**

### **Clearing the air (The Indian Express: 20190917)**

<https://indianexpress.com/article/opinion/editorials/delhi-odd-even-arvind-kejriwal-pollution-6000961/>

Odd-even policy is no magic bullet to tackle pollution. But it is sure to trigger a conversation about Delhi’s environment

It has also initiated a welcome conversation on Delhi’s annual tryst with bad air well before it engulfs the city.

Almost four years after it was first implemented in Delhi, the odd-even scheme will make a comeback in the city. Last week, Delhi Chief Minister Arvind Kejriwal announced that the road rationing scheme will be a part of a seven-point programme to combat pollution from November 4 to 15. The scheme, that will be implemented a week after Diwali, when Delhi's air is at its worst — the post-festival pollution combines with the smog from stubble burning in Haryana, Punjab and Uttar Pradesh, and particulate matter from tailpipes of vehicles. In the last three years, the Delhi government and the agencies responsible for managing the city's environment resorted to knee-jerk reactions, which did very little to improve the city's air quality. The AAP government's decision to have a pollution-management plan in place nearly two months before the acrid smog hits the city is a welcome departure from the past.

The road rationing scheme allows vehicles to ply on alternate days, depending on odd and even number plates. It was introduced in January 2016, as a desperate measure of sorts after the Delhi High Court described the city as a gas chamber and asked the state government to submit a time-bound plan to mend matters. In response, the AAP government implemented the road-rationing scheme for 15 days in 2016 — from January 1 to 15 and then, from April 15 to 30. An ugly squabble between the Delhi government and the National Green Tribunal (NGT) came in the way of its implementation after Diwali in 2017. The NGT contended that any relaxation would come in the way of improving the city's air quality while the government wanted exemptions for two-wheelers. The government had argued then that Delhi's public transport wasn't equipped to handle the fallout of extending road-rationing to two-wheelers. The government has not talked about exemptions as yet. It has nearly two months to iron out glitches and sort out potential differences that could come in the way of the smooth implementation of the plan. More importantly, it needs to ensure that the city's public transport system is able to meet the needs of commuters on days when their vehicles will be off the roads.

In itself, the odd-even scheme is no magic bullet to clean up Delhi's bad air. But the good news is that the AAP government envisages road rationing as a part of a bouquet of pollution-control measures. It has also initiated a welcome conversation on Delhi's annual tryst with bad air well before it engulfs the city.

# 'Phyjamas' can measure heartbeat, breathing now

Such textiles will prove to be clinically useful, say experts

Washington, Sept. 16: Researchers have designed novel physiological-sensing textiles, dubbed "phyjamas," that contain unobtrusive, portable devices for monitoring heart rate and respiratory rhythm during sleep.

The researchers at the University of Massachusetts Amherst in the US said the textiles that can be woven or stitched into sleep garments will prove clinically useful in health care. "The challenge we faced was how to obtain useful signals without changing the aesthetics or feel of the textile," said professor Trisha L. Andrew, a materials chemist. "Generally, people assume that smart textiles refer to tightly worn clothing that has various sensors embedded in it for measuring physiological and physical signals, but this is clearly not a solution for everyday clothing and, in particular, sleepwear," Andrew said.

"Our insight was that even though sleepwear is worn loosely, there are several parts of such a textile that are pressed against the body due to our posture and contact with external surfaces," said computer scientist Deepak Ganesan.

"This includes pressure exerted by the torso against a chair or bed, pressure when the arm rests on the side of the body while sleeping, and

■ The difficulty is that these signals can be individually unreliable, particularly in loose-fitting clothing, but signals from many sensors placed across different parts of the body can be intelligently combined to get a more accurate composite reading.



■ Researchers also developed data analytics to fuse signals from many points that took into account the quality of the signal coming in from each location.

light pressure from a blanket over the sleepwear," Ganesan said.

Such pressured regions of the textile are potential locations where we can measure ballistic movements caused by heartbeats and breathing, and these can be used to extract physiological variables, researchers wrote in the journal *The Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*.

The difficulty is that these signals can be individually unreliable, particularly in loose-fitting clothing, but signals from many sensors placed across different parts of the body can be intelligently combined to get a more accurate composite reading.

Andrew, Ganesan and colleagues explain that their team had to come up with several new ideas to

make their vision a reality. They realised that there is no existing fabric-based method to sense continuous and dynamic changes in pressure, particularly given the small signals that they needed to measure. The team designed a new fabric-based pressure sensor and combined that with a triboelectric sensor — one activated by a change in physical contact — to develop a distributed sensor suite that could be integrated into loose-fitting clothing like pajamas.

They also developed data analytics to fuse signals from many points that took into account the quality of the signal coming in from each location.

The researchers said this combination allowed them to detect physiological signals across many different postures.

They performed multiple user studies in both controlled and natural set-

tings and showed that they can extract heartbeat peaks with high accuracy, breathing rate with less than one beat per minute error, and perfectly predict sleep posture.

"We expect that these advances can be particularly useful for monitoring elderly patients, many of whom suffer from sleep disorders," said Andrew.

Researchers noted that current generation wearables, like smartwatches, are not ideal for this population since elderly individuals often forget to consistently wear or are resistant to wearing additional devices, while sleepwear is already a normal part of their daily life.

"More than that, your watch can't tell you which position you sleep in, and whether your sleep posture is affecting your sleep quality; our Phyjama can," Andrew said.

## Depression (The Asian Age: 20190917)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=13771312>

# Dysphagia can lead to severe depression, says study

Swallowing affects the physical and mental health of all human beings. 1 in 17 people will develop some form of dysphagia in their lifetime. Dysphagia is an important alarm symptom; however, the epidemiology remains poorly defined.

Dysphagia in general population is present from aged >50 years due to which they may need to compromise with their meals or favourite food which shows the impact on their quality of life. Avoiding swallowing specific food, fluids or pills may result in malnutrition

and weight loss. Not only does eating provide nutrients, but it also serves as an important role in social interaction.

Dr Govathi Nikhila Karpuram, Dysphagiologist — speech pathologist at Medanta — The Medicity talks about how depression is related to dysphagia. Severity and symptoms of dysphagia defer from condition to condition based on their site and size of lesion/condition.

Depression after dysphagia depends on the severity of the condition.

Researches say that



▶ Dysphagia in general population is present from aged >50 years due to which they may need to compromise with their meals or favourite food which shows the impact on their quality of life

prevalence rate of Dysphagia in general population is about 11 per cent and 40-70 per cent in stroke patients, 60-80 per cent patients with Neurodegenerative disease and up to 13 per cent of adults aged 65 and older

>51 per cent of institutionalised elderly patients. 60-70 per cent of patients who undergo radiotherapy for Head and Neck cancer.

In post-stroke patients, depression is common and affects almost one-third of stroke survivors at any

one time after stroke and has a deleterious effect not only on the motivation but also on the cognitive functions, physical abilities, dysphagia, with speech and language issues.

It should be logically expected that post-stroke depression has a negative impact on functional recovery due to which it shows the effect on their quality of life.

If we see in patients with Parkinson's disease (PD) it is a Neurodegenerative disease that affects 1.4 per cent of the population over the age of 55 years and 4.3 per cent of popula-

tion 85 years of age and older. Swallowing disturbances comprise a common complication (up to 95 per cent) of the patient with PD and are considered to be a major cause of death.

Dysphagia occurs frequently in patients with PD and more so in those who have reached the advanced stage of the disease which make them compromise with their quality of life and may lead to depression.

Swallowing problem in dementia patients may occur with different factors. — Agencies

## Cancer

### Scientists discover the structure of cancer molecule (Medical News Today: 20190917)

<https://www.medicalnewstoday.com/articles/326351.php>

Alternative splicing is a complex but insufficiently understood process. It is crucial to the production of proteins necessary to cell health. Researchers now believe that cancer cells also use this process to their own advantage.

Research uncovers new information about a mechanism that cancer may 'hijack.'

Proteins are large molecules that are absolutely crucial to the health of every single cell in the human body.

However, the processes that determine which, and how many, proteins are available to a cell are complex.

In fact, researchers are still studying how some of these processes work.

One such process is alternative splicing, which gives cells access to a diverse range of proteins that originate from the same genetic source code but also serves different purposes within the cell, thereby ensuring its health.

However, when alternative splicing malfunctions, it can contribute to cancer's growth, spread, and ability to develop resistance to chemotherapy.

Many researchers believe that by regulating alternative splicing, they could find a way to improve cancer therapies. Yet they still do not fully understand how this complex process works.

Now, researchers from the Institute of Cancer Research in London, United Kingdom, have made fresh discoveries about the structure and function of DHX8. This is a molecule that plays an important role in alternative splicing, and its activity could help explain how cancer can hijack this vital process and use it for its own benefit.

"It is estimated that [around] 95% of human genes are alternatively spliced," the study authors explain.

"Under normal conditions," they add, "alternative splicing is tightly regulated, but changes in alternative splicing are increasingly linked to a variety of human diseases, and in particular to cancer." Their paper now features in the *Biochemical Journal*.

'Exciting new avenues for cancer treatment'

DHX8 plays a role in the final step of splicing, in which genetic information is decoded, and it leads to the production of the diverse forms of protein.

In their research, the scientists explore how human DHX8 performs this feat. They also describe its structure and what function this structure serves.

Cancer is now the leading cause of death in wealthy countries

Cancer now causes more deaths than any other condition in the world's wealthiest nations.

Until now, scientists had a limited understanding of certain regions of DHX8's structure, including the "DEAH motif," the "hook loop," and the "hook turn." Now, however, the team has succeeded in uncovering more information about how they work.

"Our study has shed new light on the structure and function of a crucial protein involved in the process of alternative splicing, in which genetic information is mixed and matched to

create multiple protein molecules from a single gene," says lead study author Rob van Montfort, Ph.D.

The researchers' findings, he believes, could lead to the development of more effective anticancer therapies in the future. "Cancer cells," he says, "take advantage of alternative splicing to diversify, evolve, and escape the body's regulatory mechanisms."

"By determining the detailed molecular structure of one of the key protein molecules involved in alternative splicing, we have opened up potentially exciting new avenues for cancer treatment."

Rob van Montfort, Ph.D.

Going forward, the researchers plan to look at how DHX8 might contribute to rendering cancer more difficult to treat.

In doing so, they hope to find a way of blocking DHX8 or similar molecules. This, they suggest, could be a promising strategy against cancer's spread and its resistance to therapeutic drugs.

"We are excited to study these 'mix and match' proteins further, because we think our findings open up a new route to help block cancer's evolutionary pathways, and potentially overcome drug resistance," notes study co-author Prof. Paul Workman.

Emily Farthing, a research information manager at Cancer Research UK — a cancer research and awareness charity that supported the recent research — also comments on the new possibilities that this study has opened up.

"This research provides valuable information about how cancer cells hijack a process in our cells to make them more diverse and enables them to evade treatment. Although more work is needed to build on these findings, this research could open up the possibility of novel cancer therapies in the future," she says.

**Cancer is now the leading cause of death in wealthy countries (Medical News Today: 20190917)**

<https://www.medicalnewstoday.com/articles/326341.php>

Heart disease has long been the leading cause of death. However, a new global study has shown — in higher income countries, at least — that cancer is now twice as likely to cause death as heart disease.

A recent study offers important insights into the leading causes of death worldwide.

In the United States, heart disease has traditionally topped the list as the leading cause of death for both men and women.

It is currently responsible for around 1 in 4 deaths. However, experts have been wondering when cancer will overtake it.

Now, a new study has found that cancer is fast becoming the leading cause of death in higher income countries.

This may seem like bad news, but the researchers behind the study — who investigated the occurrence of common conditions and causes of death in a wide spectrum of countries across the world — say that it is not necessarily so.

More specifically, they found that cancer now causes 55% of deaths among middle aged people in higher income countries, whereas heart disease causes just 23%.

The researchers, who have published their findings in *The Lancet*, say that this is due to improved efforts to prevent and treat heart disease in more prosperous countries.

"In some respects, this is a good news story," says co-lead study author Dr. Darryl Leong. "It suggests that efforts to treat blood pressure, cholesterol, and cardiovascular disease are meeting with some success."

Prevalence declining but more work needed

The SEER Cancer Statistics Review for 2018 noted a 26% drop in cancer-related deaths in the U.S. between 1991 and 2015.

Although this shows progress, there is still much work to be done, according to the National Cancer Institute. For example, the number of people smoking may have declined, but obesity is on the rise and the U.S. population is aging. All of these factors impact cancer statistics.

What are the signs that someone is close to death?

Knowing what to expect may help ease the grief.

"Whether or not cancer rates are increasing is a complex question with no easy answer," Dr. Leong told *Medical News Today*. He heads the Cardio-Oncology Program at McMaster University and is affiliated with Hamilton Health Sciences in Canada.

"Different cancers have different patterns; cancer diagnosis rates depend in part on the use of screening tests in different populations; aging populations also affect the risk of developing cancer at a population level."

In their Prospective Urban Rural Epidemiology study, Dr. Leong and colleagues set out to get an up-to-date understanding of which conditions are the most significant threats to middle aged adults across the globe.

## A study into current major health threats

The researchers conducted their study in 21 countries across five continents. The Population Health Research Institute of McMaster University and Hamilton Health Sciences headed up the project.

Over 9.5 years, the team followed 162,534 adults, ages 35–70, from:

high income Canada, Saudi Arabia, Sweden, and the United Arab Emirates

middle income Argentina, Brazil, Chile, China, Columbia, Iran, Malaysia, Palestine, the Philippines, Poland, Turkey, and South Africa

low income Bangladesh, India, Pakistan, Tanzania, and Zimbabwe

The researchers revealed that although heart disease is no longer the biggest killer in higher income countries, it remains the most common cause of death worldwide.

In middle income countries, heart disease was responsible for 41% of deaths, and in lower income countries, it was responsible for 43% of deaths. This is despite the risk factors that wealthier populations have.

Cancer ranked second most common, at 26%. However, although cancer was responsible for 55% of deaths in high income countries, this dropped to 30% in middle income countries and 15% in lower income countries.

The prediction is that as other countries start or continue to tackle the prevention and treatment of heart disease, cancer is likely to become the world's leading cause of death.

When the team took cancer out of the findings, overall mortality was highest in the low income countries (13.3%) and lowest in high income countries (3.4%), the former of which the researchers put down to reduced access to quality healthcare.

## Clinical implications of the findings

This was the first time that researchers in this field have collected data in a global standardized study. It allowed them to compare "apples with apples."

"We collected information from participants in a standardized way, which allows us to compare different populations, whereas other studies might not be able to make these comparisons with as much confidence," Dr. Leong told us. "We felt that there were unique aspects to our data."

As for the clinical implications:

"With individuals surviving longer with cardiovascular disease, especially in high income countries, the development of other health issues, including cancer, will be a growing problem."

Dr. Darryl Leong

The answer, say the researchers, is to continue to prevent and treat heart disease while bumping up efforts to fight cancer.

## **Physical fitness**

### **Physical fitness linked to better brain function (Medical News Today:20190917)**

<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.

## **Pregnancy**

### **Taking paracetamol in pregnancy risks child's behaviour (New Kerala: 20190917)**

<https://www.newkerala.com/news/read/212496/taking-paracetamol-in-pregnancy-risks-childs-behaviour.html>

London, Sep 16 : Women who take paracetamol during pregnancy are at risk of having children with behaviour problems, warn researchers.

The study, published in the journal Paediatric and Perinatal Epidemiology, examined whether there were any effects of taking paracetamol in mid-pregnancy and the behaviour of the offspring between the ages of six month and 11 years, with memory and IQ tested up until the age of 17.

"Our findings add to a series of results concerning evidence of the possible adverse effects of taking paracetamol during pregnancy such as issues with asthma or behaviour in the offspring," said study lead author Jean Golding, Professor at the University of Bristol in the UK.

"It reinforces the advice that women should be cautious when taking medication during pregnancy and to seek medical advice where necessary," Golding said.

Using questionnaire and school information from Bristol's Children of the 90s study, researchers examined 14,000 children.

When they were seven months pregnant, 43 per cent of their mothers said they had taken paracetamol "sometimes" or more often during the previous three months.

The researchers examined results of the children's memory, IQ and pre-school development tests, temperament and behaviour measures.

The study found an association between paracetamol intake and behavioural issues in children including hyperactivity and attention-deficit disorder.

However, this was no longer the case by the time the children reached the end of primary school.

According to the reseachers, boys appeared to be more susceptible than girls to the possible behavioural effects of the drug.

"It is important that our findings are tested in other studies - we were not in a position to show a causal link, rather an association between two outcomes," Golding added.

## **Alzheimer disease**

### **Drug for Alzheimer's disease increases hospitalisation risk (Medical News Today: 20190917)**

<https://www.newkerala.com/news/read/212173/drug-for-alzheimers-disease-increases-hospitalisation-risk.html>

Toronto, Sep 16 : Researchers have found that a drug, donepezil commonly used to manage symptoms of Alzheimer disease and other forms of dementia, is associated with a two-fold higher risk of hospitalisation.

According to the study published in the journal Canadian Medical Association Journal (CMAJ), using donepezil increases the risk of hospital admission for rhabdomyolysis, a painful condition of muscle breakdown, compared with several other cholinesterase inhibitors.

Dementia is a growing problem, with almost 10 million newly diagnosed cases every year around the world, said the researchers.

"The findings of this population-based cohort study support regulatory agency warnings about the risk of donepezil-induced rhabdomyolysis," said study researcher Jamie Fleet from McMaster University in Canada.

The study, led by researchers at Western University, looked at ICES data from 2002 to 2017 on 2,20,353 patients aged 66 years or older in Ontario, Canada, with a new prescription for donepezil, rivastigmine or galantamine, three cholinesterase inhibitors used to manage dementia and Alzheimer disease.

The researchers found that donepezil was associated with a two-fold higher risk of hospitalisation for rhabdomyolysis, a serious condition that can result in kidney disease.

According to the findings, the relative risk was small but statistically significant.