



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Wednesday 20191127

खानपान

**बच्चों के गलत खानपान के पीछे हो सकती हैं ये सारी वजहें, ऐसे करें इनमें बदलाव और सुधार
(Dainik Jagran: 20191127)**

<https://www.jagran.com/lifestyle/health-simple-tricks-to-break-your-kids-bad-food-habits-19790980.html>

सही ढंग से भोजन न करने के लिए पेरेंट्स बच्चों को ही जिम्मेदार मानते हैं बल्कि खानपान की आदतें पेरेंट्स से ही प्रभावित होती हैं इसलिए खुद के साथ बच्चों को भी हेल्दी खिलाएं ऐसे..

'अरे यह तो कुछ खाता ही नहीं!', 'सब्जियां तो जैसे इसकी दुश्मन हैं।' 'मुझे तो हमेशा इसे डांटकर ही खिलाना पड़ता है।', 'इसका टिफिन कभी भी खाली नहीं होता, हमेशा सब्जियां बचाकर ही लाता है।', 'इसे तो बस बाहर का पिज्जा-बर्गर ही अच्छा लगता है। घर की रोटी तो मानो गले में अटकती हो', ये कुछ ऐसे जुमले हैं जो अमूमन हर माता-पिता की जुबां पर होते हैं। तो कैसे इन आदतों से छुटकारा दिलाकर बचपन को शुरू से सिखाएं खानपान की अच्छी आदतें, जानेंगे इसके ट्रिक्स

1. बदलें अपना व्यवहार

जो अभिभावक बच्चे में अच्छी ईटिंग हैबिट्स डेवलप करना चाहते हैं, उन्हें सबसे पहले अपनी खानपान की आदतों पर गौर करना होगा। अगर आप हर दूसरे दिन बाहर से खाना मंगवाते हैं और बच्चे से कहते हैं कि वह घर का बना पौष्टिक भोजन खाएं तो बच्चा ऐसा कभी भी नहीं करेगा।

क्या करें: सबसे पहले अभिभावक अपना व्यवहार संयमित करें। बाहर का खाना बंद करें। सही समय पर घर का बना हेल्दी भोजन ही खाएं। आपको देखकर बच्चा भी प्रेरित होगा।

2. अलग दें खाने की प्लेट

अमूमन माता-पिता भोजन करते समय बच्चे को अपनी प्लेट से ही भोजन करवाते हैं, लेकिन खाने का यह तरीका गलत है। इससे आपको पता नहीं चलता कि बच्चे ने भरपेट भोजन किया है या नहीं। साथ ही उसे पर्याप्त मात्रा में पौष्टिकतत्व प्राप्त नहीं हो पाते।

क्या करें: बच्चे को हमेशा अलग प्लेट में भोजन दें और उसे खुद खाने के लिए प्रेरित करें। साथ ही उसे समझाएं कि वह अपनी प्लेट में भोजन झूठा न छोड़ें।

3. झूठ न बोलें, लालच न दें

कुछ माता-पिता अक्सर बच्चों को खाने के लिए लालच देते हैं या फिर उनसे झूठ बोलते हैं। जैसे कि अगर तुम खाना खत्म करोगे तो हम तुम्हें बाहर घुमाने ले जाएंगे। लेकिन जब अभिभावक अपना वादा पूरा नहीं करते तो इससे बच्चे के कोमल मन पर विपरीत प्रभाव पड़ता है। ऐसे में न सिर्फ बच्चे खुद भी झूठ बोलना सीखते हैं, बल्कि खुद को शांत करने के लिए बर्गर, चिप्स या चॉकलेट आदि खाते हैं, जिससे वह इमोशनल ईटिंग के शिकार हो जाते हैं।

क्या करें: सिर्फ भोजन ही नहीं, किसी भी संदर्भ में बच्चे से झूठे वादे कभी भी न करें। जो कार्य आप नहीं कर सकते, बच्चों को उसका कारण समझाते हुए प्रेम से मना कर दें।

4. जबरदस्ती न करें

बचपन से ही कुछ मां खाने को लेकर बच्चे के साथ जबरदस्ती करती हैं। वह बच्चे को गोद में लेकर उनके हाथ-पैर पकड़कर जबरदस्ती उन्हें खाना खिलाती हैं। इससे बच्चे की पोषण संबंधी जरूरतें तो पूरी नहीं होतीं, बल्कि उन्हें बचपन से ही खाने से नफरत होने लगती है। कुछ बच्चों को तो इसके कारण भूख न लगने की समस्या भी होने लगती है और वह कमजोर होते चले जाते हैं।

क्या करें: बच्चे के साथ कभी भी भोजन को लेकर जबरदस्ती न करें। अगर बच्चा एक वक्त भोजन नहीं कर रहा है तो उसे यूं ही छोड़ दें। कुछ देर बाद जब उसे भूख लगेगी तो वह खुद आपसे खाना मांगेगा। हालांकि इस बात का ध्यान रखें कि आप उस दौरान उसे दूध या अन्य चीजें न दें, ताकि उसे खुलकर भूख लग सके।

फेफड़ों की बीमारी

फेफड़ों की इस बीमारी से हर साल 15 लाख लोगों की होती है मौत, जानें इसके लक्षण व बचाव (Dainik Jagran: 20191127)

<https://www.jagran.com/news/national-in-india-5-lakh-people-die-every-year-from-chronic-obstructive-pulmonary-disease-jagran-special-19790851.html>

COPD फेफड़ों से संबंधित गंभीर बीमारी है। इस मर्ज में फेफड़ों के टिश्यूज के क्षतिग्रस्त होने के परिणामस्वरूप पीड़ित व्यक्ति अच्छी तरह से सांस नहीं ले पाता।

नई दिल्ली, विवेक शुक्ला। Chronic obstructive pulmonary disease symptoms and prevention: 68 वर्षीय सुरेंद्र कुमार अपने बेटे का सहारा लिए खांसते हुए मेरे क्लीनिक पहुंचे। उस वक्त सांस लेने में उन्हें दिक्कत हो रही थी। चेकअप और जांचों के निष्कर्ष से पता लगा कि वह क्रॉनिक ऑब्सट्रक्टिव पल्मोनरी डिजीज (सीओपीडी) से ग्रस्त हैं और कई महीनों से खांसी का इलाज भी चल रहा था। वह धूमपान की लत के शिकार थे और पिछले कई महीनों से खांसी, सांस में तकलीफ और बलगम बनने की शिकायत से ग्रस्त थे। रोगी ने मुझसे पूछा कि मैं कितने दिनों में ठीक हो जाऊंगा?

इस पर मैंने जवाब दिया कि आपको जो रोग है, उसे काबू में तो रखा जा सकता है, लेकिन इसे पूरी तरह समाप्त (क्योर) नहीं किया जा सकता। यह सुनकर रोगी के चेहरे पर निराशा नजर आयी, लेकिन मैंने जब रोगी को यह बताया कि सीओपीडी से पीड़ित लोगों के लिए पुनर्वास कार्यक्रम के अंतर्गत व्यायाम, रोग का प्रबंधन और उसकी काउंसलिंग भी की जाती है, जिसके परिणामस्वरूप वह बीमारी के होते हुए भी सामान्य जिंदगी जी सकता है, तब उनका चेहरा खुशी से दमक उठा। मैंने उन्हें यह भी बताया कि इस कार्यक्रम के जरिए किस तरह रोगी के जीवन की गुणवत्ता में सुधार आता है। 15 लाख लोगों की प्रतिवर्ष दुनियाभर में मौतें क्रॉनिक ऑब्सट्रक्टिव पल्मोनरी डिजीज (सीओपीडी) से होती हैं। वहीं भारत में प्रतिवर्ष 5 लाख लोगों की मौतें सीओपीडी से होती हैं।

लक्षणों के बारे में

पीड़ित व्यक्ति की सांस फूलती है।

सबसे पहले रोगी को खांसी आती है।

खांसी के साथ बलगम भी निकलता है।

रोगी द्वारा थकान महसूस करना और उसके वजन का कम होते जाना।

तेज खांसी आने से पीड़ित व्यक्ति को कुछ समय के लिए बेहोशी भी आ सकती है।

बीमारी की गंभीर स्थिति में रोगी को सांस अंदर लेने की तुलना में सांस बाहर छोड़ने में ज्यादा वक्त लग सकता है।

मुख्य तौर पर यह बीमारी 40 साल के बाद ही शुरू होती है, लेकिन कभी-कभी इस उम्र से पहले भी व्यक्ति सीओपीडी से ग्रस्त हो सकता है।

रोगी लंबी अवधि तक गहरी सांस नहीं ले पाता। कालांतर में यह स्थिति बिगड़ती जाती है। व्यायाम करने के बाद तो मरीज की हालत और भी बिगड़ जाती है।

सीओपीडी की गंभीर अवस्था कॉरपल्मोनेल की समस्या पैदा कर सकती है। कॉरपल्मोनेल की स्थिति में हृदय पर दबाव पड़ता है। ऐसा इसलिए, क्योंकि हृदय द्वारा फेफड़ों को रक्त की आपूर्ति करने में उसे अतिरिक्त परिश्रम करना पड़ता है। कॉरपल्मोनेल के लक्षणों में एक लक्षण पैरों और टखने में सूजन आना है।

बेहतर है बचाव

झोपड़ी में लगी आग, अंदर सोए युवक की जिंदा जलकर मौत

झोपड़ी में लगी आग, अंदर सोए युवक की जिंदा जलकर मौत

यह भी पढ़ें

धूल, धुएं और प्रदूषित माहौल से बचें।

रसोईघर में गैस व धुएं की निकासी के लिए समुचित व्यवस्था होनी चाहिए।

डॉक्टर के परामर्श से हर साल इन्फ्लूएंजा की और न्यूमोकोकल (न्यूमोनिया से संबंधित) वैक्सीनें लगवानी चाहिए।

धूमपान कर रहे व्यक्ति के करीब न रहें। ऐसा इसलिए, क्योंकि जब धूमपान करने वाला धुआं छोड़ता है, तो धूमपान न करने वाले व्यक्ति के लिए कहीं ज्यादा नुकसानदेह हो सकता है।

जांच की बात

क्या है कारण

डॉक्टर का कहना है कि 'सीओपीडी' का एक प्रमुख कारण धूमपान है। अगर रोगी इस लत को नहीं छोड़ता, तो उसकी बीमारी गंभीर रूप अख्तियार कर सकती है। धूमपान से कालांतर में फेफड़ों को नुकसान पहुंचता है। फेफड़ों में सूजन आने लगती है, उनमें बलगम जमा होने लगता है। फेफड़े की सामान्य संरचना विकारग्रस्त होने लगती है। वहीं जो महिलाएं ग्रामीण या अन्य क्षेत्रों में चूल्हे पर खाना बनाती हैं, उनमें सीओपीडी से ग्रस्त होने के मामले कहीं ज्यादा सामने आते हैं। वहीं जो लोग रासायनिक संयंत्रों में या ऐसे कार्यस्थलों में कार्य करते हैं, जहां के माहौल में कुछ नुकसानदेह गैसों व्याप्त हैं, तो यह स्थिति सीओपीडी के जोखिम को बढ़ा सकती है। इसी तरह सर्दी-जुकाम की पुरानी समस्या भी इस रोग के होने की आशंका को बढ़ा देती है।

इन बातों पर दें ध्यान

प्राथमिक लक्षण: सांस गहरी न ले पाना, खांसी आना और बलगम बनना। कारण: प्राथमिक कारण धूमपान करना है। इससे फेफड़ों में सूजन आ जाती है। अस्थमा(दमा) तो नियंत्रित हो जाता है, लेकिन दमा की तुलना में सीओपीडी को नियंत्रित करना कहीं ज्यादा मुश्किल है। कालांतर में यह रोग बद से बदतर हो जाता है।

कैसे काबू करें

धूमपान छोड़ें। वैकसीनें लगवाएं। रोग से पीड़ित लोगों के पुनर्वास की जरूरत होती है। अक्सर रोगी को 'इन्हेल्ड ब्रांकोडाइलेटर्स' की जरूरत पड़ती है। कुछ पीड़ित लोगों को लंबे समय तक दी जाने वाली ऑक्सीजन थेरेपी से लाभ मिलता है। रोग की गंभीर स्थिति में फेफड़े के प्रत्यारोपण की भी आवश्यकता पड़ सकती है।

इलाज के बारे में

सीओपीडी को नियंत्रित करने में स्टेरॉयड इनहेलर्स और एंटीकॉलीनेर्जिक टैब्लेट्स की भूमिका महत्वपूर्ण है। अधिकतर दवाएं इनहेलर के रूप में इस्तेमाल की जाती हैं। कभी-कभीकभी सीओपीडी की तीव्रता बहुत बढ़ जाती है, जिसे 'एक्यूट एक्सासरेबेशन' कहते हैं। इस स्थिति का मुख्य कारण फेफड़ों में जीवाणुओं का संक्रमण होता है। इस संक्रमण के चलते फेफड़ों की कार्यक्षमता कम हो जाती है। रोगी के बलगम का रंग बदल जाता है, जो सफेद से हरा या पीला हो जाता है। रोगी तेजी से सांस लेता है और उसके हृदय की धड़क न बढ़ जाती है। यहीं नहीं, 'एक्यूट एक्सासरेबेशन' की स्थिति में शरीर में ऑक्सीजन की मात्रा कम हो जाती और कार्बनडाइऑक्साइड की मात्रा बढ़ जाती है। सीओपीडी में मौत

होने का मुख्य कारण यही स्थिति होती है। इस गंभीर स्थिति में रोगी को बाईपैप थेरेपी और ऑक्सीजन दी जाती है।

Women Health (Hindustan: 20191127)

https://epaper.livehindustan.com/imageview_404616_46263076_4_1_27-11-2019_3_i_1_sf.html

सफदरजंग अस्पताल में हुए शोध में दावा, 76 फीसदी महिलाओं को बाद में सर्जरी करानी पड़ी खुद गर्भपात की दवा लेने के 98% मामले जानलेवा

नई दिल्ली | हेमवती नंदन राजौरा

खुद से गर्भपात की दवाएं लेना जानलेवा साबित हो सकता है। बिना डॉक्टर की सलाह के दवा लेने वाली सिर्फ दो फीसदी महिलाओं का ही बिना किसी समस्या के गर्भपात हो पाता है। वहीं 76 फीसदी महिलाओं को सर्जरी की जरूरत पड़ गई।

सफदरजंग अस्पताल में खुद दवा लेकर सलाह लेने आई महिलाओं पर हुआ शोधपत्र इंडियन जर्नल ऑफ एब्स्ट्रैक्ट एंड गायनेकोलॉजी में



बिना सलाह दवा न लें

गर्भपात की दवा बिना डॉक्टर की सलाह के लेना खतरनाक हो सकता है। दक्षिण भारत के राज्यों में फार्मासिस्ट बिना डॉक्टर के पर्चे के गर्भपात की दवा नहीं देते, लेकिन उत्तर भारत के राज्यों में नियमों में ढील के कारण धड़ल्ले से फार्मासिस्ट दवाएं दे देते हैं।

ये समस्या हो सकती है

- गर्भपात की गोली लेने पर कई बार भ्रूण पूरी तरह शरीर बाहर नहीं आ पाता। तब सर्जरी करनी पड़ती है
- गलत तरीके से दवा लेने पर महिला को अत्यधिक रक्तस्राव की शिकायत हो सकती है।

प्रकाशित हुआ है। इसमें सौ महिलाओं पर चार माह अध्ययन किया गया। सफदरजंग अस्पताल की प्रसूति रोग विभाग की एसोसिएट

प्रोफेसर डॉक्टर दिव्या पांडे ने बताया कि खुद से गर्भपात की दवा लेनी वाली महिलाओं में से 20 फीसदी को मानसिक तनाव का सामना करना

पड़ा, वहीं 15 फीसदी महिलाएं सेपसिस के संक्रमण का हुआ, जबकि आठ फीसदी एनीमिया की शिकार हो गईं।

स्मार्टफोन बताएगा मां और नवजात की सेहत

■ नई दिल्ली : स्मार्टफोन में सॉफ्टवेयर के जरिए बच्चे की गर्भनाल (प्लेसेंटा) को स्कैन करके मां और उसके बच्चे की सेहत के बारे में पता लगाया जा सकेगा। एक मीडिया रिपोर्ट के मुताबिक रिसर्चरों ने आर्टिफिशल इंटेलीजेंस के जरिए इस डिजिटल टूल को तैयार किया है। रिसर्चरों का कहना है कि गर्भनाल के जरिए मां और बच्चे के बारे में तमाम नाजुक सूचनाएं मिल सकती हैं। इस संबंध में एक स्टडी अर्जेन्टिना के ब्यूनस आयर्स में इंटरनैशनल फेडरेशन ऑफ प्लेसेंटा असोसिएशन की बैठक में पेश की गई।

अभी इस तकनीक का पेटेंट नहीं मिला है। रिसर्चरों ने बताया कि इसके तहत डिलीवरी के बाद गर्भनाल की हर साइड का आर्टिफिशल इंटेलीजेंस के जरिए विश्लेषण किया जाता है। इसके बाद उन नाजुक सूचनाओं की रिपोर्ट तैयार की जाती है जो उस मां और बच्चे की सेहत पर असर डाल सकती है। इसके जरिए यह भी पता लगाया जाता है कि गर्भ में भ्रूण को पूरी ऑक्सीजन मिली या नहीं, कहीं इन्फेक्शन या ब्लीडिंग का



खतरा तो नहीं है। इस डिजिटल टूल को स्मार्टफोन या टैब में उचित सॉफ्टवेयर के जरिए कोई भी ऑपरेट कर सकेगा और मां और बच्चे की सेहत के बारे में जान सकेगा।

रिसर्चरों द्वारा पेश किए गए इस हल में सभी गर्भनाल का का परीक्षण किया जाएगा।

इससे बार-बार पैथोलॉजिकल परीक्षण के लिए भेजे जाने वाले गर्भनाल का नंबर भी घटेगा। इससे भी मां और बच्चे की सेहत पर अच्छा प्रभाव पड़ेगा। (एनबीटी)



आंखों की रेटिना के पीछे स्थित कोशिकाएं इससे मृत हो जाती हैं वायु प्रदूषण से दृष्टिबाधित होने का बढ़ रहा खतरा



सेहत

लंदन | एजेसी

ज्यादा प्रदूषित इलाके में रहने से अंधे होने का खतरा बढ़ सकता है। एक शोध में यह दावा किया गया है। शोधकर्ताओं ने पाया कि ज्यादा प्रदूषित इलाकों में रहने वाले लोगों में स्वच्छ इलाकों में रहने वालों की तुलना में ग्लूकोमा (आंख से संबंधित बीमारी) होने का खतरा छह फीसदी तक बढ़ जाता है।

रक्त धमनियां हो जाती हैं संकुचित: दुनियाभर में छह करोड़ लोग ग्लूकोमा की बीमारी से ग्रस्त हैं। इनमें से दस फीसदी की दृष्टि जा चुकी है। यह बीमारी रेटिना में मौजूद कोशिकाओं के मृत होने से होती है। यूके में पांच लाख और अमेरिका में 27 लाख लोग इस बीमारी से जूझ रहे हैं। वैज्ञानिकों का मानना है कि वायु प्रदूषण के कारण रेटिना के पीछे



मौजूद रक्त धमनियों के संकरे होने से कोशिकाओं मृत हो जाती हैं या किसी जहरीले रसायन के सीधा आंखों में जाने से नसें क्षतिग्रस्त हो जाती हैं। सूक्ष्म प्रदूषक तत्व जो वाहनों से निकलते हैं सांस के जरिए फेफड़ों में जाते हैं और रक्त में मिल जाते हैं। रक्त में मौजूद प्रदूषक रक्त धमनियों और तंत्रिकाओं को संकरा कर देते हैं और इससे रक्तचाप बढ़ जाता है। यूनिवर्सिटी कॉलेज लंदन

बढ़ रहे ग्लूकोमा के मरीज
50 में से एक व्यक्ति में 40 साल की उम्र में ग्लूकोमा के संकेत दिखाई दे रहे हैं। इस स्तर पर इसे नजरअंदाज कर दिया जाता है। वहीं, 75 साल की उम्र में 50 में से 10 लोग ग्लूकोमा के शिकार हो जा रहे हैं। शोधकर्ताओं का मानना है कि बूढ़ी होती जनसंख्या के कारण आने वाले कुछ सालों में ग्लूकोमा के मरीजों की संख्या बढ़ेगी।

के शोधकर्ताओं ने 111,370 प्रतिभागियों के डाटा का विश्लेषण किया। यह डाटा यूके बायोबैंक से लिया गया था और इन प्रतिभागियों की आंखों की जांच 2006 से लेकर 2010 के बीच में की गई थी। फिर प्रतिभागियों के निवास स्थान की जानकारी के आधार पर वायु प्रदूषण के स्तर की तुलना की गई। जो सबसे प्रदूषित इलाके में रहते थे उनमें ग्लूकोमा होने का खतरा छह फीसदी ज्यादा था।

Can smog towers help rid Delhi of choking pollution? Experts debate (Hindustan Times: 20191121)

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

New Delhi : A day after the Supreme Court asked the Centre to come up with a road map on installing smog towers in Delhi-NCR within 10 days to combat rising pollution, officials of the Central Pollution Control Board (CPCB) and the Delhi Pollution Control Committee (DPCC) met in the capital on Tuesday.

“We are deliberating and will come up with a plan on how to implement it. There are various aspects that need to be looked into, as the project involves high costs and adequate space,” said a senior DPCC official.

Mechanical solution to air woes



■ The 200-foot-tall world's biggest air purifier, designed to combat smog and other air pollution in Xi'an, China.

GETTY

WHAT IS A SMOG TOWER?

It is a concrete structure fitted with multiple layers of filters. It was first experimented with in China, which at present has two such towers — in Beijing and Xi'an. The basic design is the same, however, the filtration dynamics may differ.

HOW DOES IT FILTER AIR?

The smog tower sucks in polluted air, which is then passed through multiple filters before being re-circulated in the atmosphere.

HOW MUCH IT COSTS

Each tower is estimated to cost around **₹10-12 crores** including constructing of the tower, filtering equipment and a monitoring system.

WHO WILL MAKE SMOG TOWERS IN INDIA?

IIT-Bombay and IIT Delhi are collaborating with the University of Minnesota on a proposed pilot project. However, filters will have to be imported. The Central Pollution Control Board (CPCB) is overseeing the proposed pilot. The University of Minnesota had helped build a smog tower in Xi'an (China). In India, a Delhi-based start-up has designed a 40-foot-tall purifier which it claims could provide clean air to 75,000 people living in the three-kilometre radius.

HOW BIG AN AREA IT REQUIRES TO OPERATE

It requires a proper compound of about 30X30 metres

WHAT IS THE RANGE OF A SMOG TOWER?

The estimated range is about 1 km in direction of the wind, say experts

THOSE IN FAVOUR SAY



It may help provide some relief during 'severe' episodes

It has to be experimented with as a last resort while many other measures have failed to curb the peak episodes

THOSE AGAINST SAY



It is too expensive a technology, which has not been tested before in the country.

There is no scientific data or feasibility study done to know its impact on ambient air quality

“We will be meeting experts from the Department of Science and Technology and IIT scientists, who are working on this project, to be able to take a decision,” the official said.

Installation of smog towers to curb pollution was first proposed to CPCB in 2018. A proposed pilot project to consider the efficacy of smog towers is being undertaken by IIT-Bombay in collaboration with IIT-Delhi and the University of Minnesota. The US-based institution has helped build a smog tower in Xian, northern China.

“We have proposed a prototype to deal with ‘severity’ of air pollution. It is to deal with acute situations and not the final solution to pollution,” said a senior IIT-Bombay scientist.

Sri Harsha Kota, an assistant professor at the department of civil engineering, IIT- Delhi, who is closely associated with the project, said, “It is at an experimental stage and logistics are yet to be decided. There is no data or a model as such to test its feasibility.” The project is estimated to cost around ₹10-12 crore, said project members at IIT-Delhi.

Experts have questioned the feasibility of the project given that Delhi is a congested city where space is at a premium. Also, they said, there have been no studies to assess the impact of this technology on the ambient air quality.

Santosh Harish, a fellow at the Centre for Policy Research said, smog towers may be the last resort in a place like Delhi, where the nature and scale of the problem different from other cities, but there must be a proper assessment before investing in the technology. “It may remove some dust from the vicinity, but controlling pollution at source may not be possible. Even in China, which has two such towers, this technology was not well received or widely implemented,” he said.

D Saha, former head of CPCB air laboratory, said smog towers are not suitable to Delhi’s meteorological conditions. “There is a constant intrusion of dust in Delhi because of various geographical and local factors. How much can a filter suck? A model such as this cannot be successful for a city like Delhi.”

Telling Numbers: Pollution on Diwali rose 5x in Delhi; Bengaluru air clean (The Indian Express: 20191127)

<https://indianexpress.com/article/explained/pollution-on-diwali-pm2-5-rose-5x-in-delhi-bengaluru-air-clean-6138614/>

Air quality on Diwali deteriorated significantly in Delhi, Lucknow, Agra, and Kolkata. While it deteriorated in Bengaluru too, the latter remained the least polluted among these cities.

The Central Pollution Control Board conducted air quality monitoring for seven cities — Delhi, Agra, Bengaluru, Bhopal, Kolkata, Lucknow, and Vadodara.

In Delhi, the Diwali readings for PM_{2.5} and PM₁₀ rose respectively by roughly five and three times from the previous week's readings, statistics tabled in Parliament by the Ministry of Environment, Forest and Climate Change show.

While the PM_{2.5} reading rose from 116 micrograms per cubic metre to 512 µg/cu.m on Diwali (October 27), PM₁₀ rose from 190 to 600. Air quality on Diwali deteriorated significantly in Delhi, Lucknow, Agra, and Kolkata. While it deteriorated in Bengaluru too, the latter remained the least polluted among these cities as both PM_{2.5} and PM₁₀ levels remained within prescribed limits.

The Central Pollution Control Board conducted air quality monitoring for seven cities — Delhi, Agra, Bengaluru, Bhopal, Kolkata, Lucknow, and Vadodara. It measured air quality for pre-Diwali, Diwali and post-Diwali periods. The Board prescribes the National Ambient Air Quality Standard (NAAQS) for PM_{2.5} (Particulate Matter 2.5) at 60 µg/cubic metre (24-hourly average), and PM₁₀ (Particulate Matter 10) at 100 µg/cu.m.

PM2.5			
City	Pre-Diwali	Diwali	Post-Diwali
Delhi	116	512	435
Lucknow	140	298	266
Agra	134	225	231
Kolkata	91	216	123
Bhopal	67	105	60
Vadodara	39	64	24
Bengaluru	11	35	22

Figures in micrograms per cubic metre

Telling Numbers: Pollution on Diwali rose 5x in Delhi; Bengaluru air clean

Figures in micrograms per cubic metre. (Source: Central Pollution Control Board via MoEFCC)

On pre-Diwali days, PM10 and PM2.5 were already significantly above NAAQS levels in Agra, Delhi, Lucknow and Kolkata, while the levels in the other three cities were below or slightly above these standards. On Diwali, all cities except Bengaluru crossed PM2.5 NAAQS values. On post-Diwali days (seven days after October 27), the levels of both pollutants fell in all these cities except Agra.

The question was raised by Trinamool Congress MP Shanta Chhetri in Rajya Sabha. In his reply, Minister of State Babul Supriyo said it was evident that north Indian cities displayed similar dispersion patterns.

HIV/AIDS

New AIDS infections falling globally: Report (Hindustan Times: 20191127)

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

New Delhi : There were 37.9 million people living with HIV in 2018 worldwide, up from 37.2 million in 2017, according to a new report by the Joint United Nations Programme on HIV/AIDS (UNAIDS).

The report also says 24.5 million infected people using antiretroviral therapy (ART) are living healthier and longer lives, indicating that there has been a drop in death rate.

Annual new infections, which indicate whether an epidemic is growing or ebbing, reduced to 1.7 million in 2018, down from 1.8 million the year before, according to the report.

Though new infections have declined by 40% worldwide since the peak of the AIDS epidemic in 1997, it is critical to reach out to all, including high-risk groups, to end AIDS as a public health threat by 2030, said the report.

“We are in the last lap, which is the harder one because we need to target the most marginalised and vulnerable for prevention, testing and treatment,” said Winnie Byanyima, executive director, UNAIDS.

The report warns that laws and policies in many countries are excluding key populations at risk, who account for 54% of new HIV infections globally. Key populations at risk include same-sex male couples, injecting drug users, sex workers and transgender people.

In India, new HIV infections declined by 27% between 2010 and 2017, the last year for which data is available. The number people living with HIV fell from 2.30 million to 2.14 million during that period despite a 1.24% annual rate of increase in the country’s population that stands at 1.36 billion.

“Yes, India can end HIV by 2030, I’m very optimistic. Our immediate goal is to meet UNAIDS 90–90–90 targets that aim to diagnose 90% of all HIV-positive persons, provide ART to 90% of those diagnosed, and achieve viral suppression for 90% of those treated by 2020,” said Sanjeeva Kumar, director general, National AIDS Control Organisation (NACO), which has an annual budget of Rs 2,500 crore for 2019-20.

During the same period, annual new infections fell from 120,000 to 87,580, and AIDS-related deaths more than halved from 160,000 to 69,110, according to data from NACO India HIV Estimation 2017 report.

“Since 2017, people in India accessing ART treatment have increased from 1.2 million to 1.35 million and is growing steadily. Getting people on treatment is easy, the hard part is

ensuring they stay on it and keep the viral load suppressed, which not only keeps them disease-free but also lowers the risk of infecting their partners,” said Kumar. In India, unprotected sex and injecting drug use are the leading causes of new infection.

“We are engaging with populations at risk through social media to increase their access to prevention, testing and treatment services,” said Kumar. NACO has started Mission Sampark (contact) to bring patients back on ART who were lost to follow-up. Integrating programmes, such testing for HIV and syphilis, HIV and tuberculosis, and HIV and Hepatitis C -- will help take HIV services to a wider population.

“Test-and-treat has increased access to treatment and first-, second- and third-line ART medicines are available. Some supply issues remain, as we need buffer stock to ensure people do not miss doses, which leads to drug resistance. We need also more community drop-in centres to increase access to information and also offer livelihoods to people living with HIV,” said Brijesh Dubey, president of Rajasthan Network of People Living with HIV.

‘We are in the last lap of AIDS battle’ (Hindustan Times: 20191127)

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

New Delhi : Countries must work closely with communities to focus on prevention and detection measures, including scaling up self-testing and access to antiretroviral therapy, to stop AIDS, Winnie Byanyima, UNAIDS executive director, told HT’s Sanchita Sharma in an interview.

Have the world won the battle against AIDS?

I’d say we are in the last lap (to tackle AIDS). We have been successful in getting people to test and come for treatment; there are 24.5 million people on treatment, which helps them lead healthy, long lives. It has helped reduce AIDS-related deaths by one-third in the last nine years. On the side of prevention, we have not been as successful. We have seen new infection actually increasing in some regions. But there has also been remarkable success, for instance, in southern Africa where new infections have reduced by 40% in nine years.

What should be India’s focus?

In India, where you have 2.1 million people living with HIV, just 1.2 million are on treatment (2017 data). You clearly have a challenge of getting 900,000 people on to treatment.

I think you have done very well in India because you've been able to pass laws to ensure that people are not discriminated against. These are the things you need to do and enforce to ensure everyone with HIV is on treatment.

Young women (15–24 years) are twice as likely to be living with HIV as men. Why is the risk higher?

There is discrimination and violence against women and girls. I know your country is working hard on violence against women, I hear there is a huge community-led movement across the country working to fight the AIDS epidemic and to fight violence against women.

Is self-testing the way ahead? Should it be a part of policy?

Yes, absolutely. Self-testing and other innovations that bring services to people who are denied rights in safety and with no judgment are very important tools. Self-testing is a real game-changer for gay people who are in countries where they are treated under downright criminalisation.

It's a game-changer for girls and young women because girls and young women face action for stepping out of the sexual norms of their community.

Healthcare

Sonepat civil hospital cries for medical officers (The Tribune: 20191127)

<https://www.tribuneindia.com/news/haryana/sonapat-civil-hospital-cries-for-medical-officers/866428.html>

There is no dearth of health institutions in the district, but the shortage of staff remains a worry. The district is home to 53 health centres, including one civil hospital in Sonepat, eight Community Health Centres (CHC) and 32 Primary Health Centres (PHCs).

But on the staff front, 74 posts of Medical Officer out of 195 sanctioned ones have been lying vacant. These include 33 in the local civil hospital, five at the CHC in Bhainswal Kala village, four at the CHC in Ganaur and nine in three Urban Health Centres.

As a result of staff shortage, accident victims have been at the receiving end. They are either being referred to the Post-graduate Institute of Medical Sciences (PGIMS), Rohtak, about 60 km from here, or BPS Government Women Medical College at Khanpur Kalan, about 55 km

from here. Reason: there is no medical institution in the vicinity of the NH-44 for providing immediate and quality treatment to accident victims.

There has been an increase in accidents on the 52-km stretch of the New Delhi-Panipat National Highway 44 in the district.

Sources say the increase in accidents is because of two reasons. One, the ongoing widening of the 52-km stretch of the New Delhi-Panipat NH 44. It is being widened to 12 lanes, including four service lanes on both sides. The pace of work, however, is slow. Two, the rapid increase in plying of traffic.

According to police records, there have been 135 accidents on the 52-km stretch from January 1 to this day so far. Of them, 65 have been of fatal nature.

Critical condition

53 Health centres

195 Sanctioned posts

74 Posts vacant

Delhi: '15 govt hospitals to get 63 ventilators' (The Indian Express: 20191127)

<https://indianexpress.com/article/cities/delhi/delhi-govt-to-hc-15-govt-hospitals-to-get-63-ventilators-6138422/>

Timeline of procurement is reported to be completed within six months... Repair work of 10 ventilators is reported to be completed within 2-3 weeks in the 15 hospitals, a status report filed by Additional Standing Counsel (Civil) before HC said.

Non-functioning ventilator beds in Delhi government hospitals was highlighted during the hearing of an issue raised by lawyer Ashok Agarwal. (Representational Image)

The Delhi government informed the Delhi High Court Tuesday that 15 government hospitals in the capital have initiated the process of procuring 63 ventilators, which they would get within six months.

As per the status report filed by Advocate Satyakam, Additional Standing Counsel (Civil), before Delhi HC Chief Justice D N Patel, "procurement of 63 new ventilators is under

process. Timeline of procurement is reported to be completed within six months... Repair work of 10 ventilators is reported to be completed within 2-3 weeks in the 15 hospitals.”

The Institute of Liver and Biliary Sciences, in its reply, said it has initiated procurement of 38 new ventilators, the maximum among all hospitals, and that the process was currently at the technical assessment committee stage.

As per the action-taken report submitted by several hospitals on the status of beds, Guru Gobind Singh Hospital said it will incorporate additional ICUs for its new 472-bed project, work for which is underway. However, 12 government hospitals have not sent their replies.

Non-functioning ventilator beds in Delhi government hospitals was highlighted during the hearing of an issue raised by lawyer Ashok Agarwal. In January, a three-year-old suffering from a critical neurological condition, and in dire need of a breathing apparatus, was admitted in a government hospital and put on a manual resuscitator. As per the government’s report, the child died on February 10.

Global Warming

On current course, global temp to increase by 3.2 degrees by 2030: UNEP report (The Indian Express: 20191127)

<https://indianexpress.com/article/india/on-current-course-global-temp-to-increase-by-3-2-degrees-by-2030-unep-report-6136988/>

The report – UNEP's annual Emissions Gap Report – says that unless global greenhouse emissions fall by 7.6 per cent annually between 2020 and 2030, "the world will miss the opportunity to get on track towards the 1.5°C temperature goal of the Paris Agreement."

The report finds that greenhouse gas emissions have risen 1.5 per cent per year over the last decade Emissions in 2018, including from land-use changes such deforestation, hit a new high of 55.3 gigatonnes of CO2 equivalent

A new report released by the UN Environment Programme (UNEP) today has said that even if the present Paris Agreement commitments are met global temperatures are expected to rise by 3.2 degrees celsius b 2030. The report – UNEP’s annual Emissions Gap Report – says that unless global greenhouse emissions fall by 7.6 per cent annually between 2020 and 2030, “the world will miss the opportunity to get on track towards the 1.5°C temperature goal of the Paris Agreement.’

The Intergovernmental Panel on Climate Change (IPCC) has warned that going beyond 1.5 degrees celsius means the “bringing of even wider-ranging and more destructive climate impacts” including storm and heatwaves. The UN climate change conference is scheduled to be held in 2020 in Glasgow and will look at the Paris Agreement commitments

“Our collective failure to act early and hard on climate change means we now must deliver deep cuts to emissions – over 7 per cent each year if we break it down evenly over the next decade. This shows that countries simply cannot wait until the end of 2020, when new climate commitments are due, to step up action. They – and every city, region business and individual – need to act now. We need quick wins to reduce emissions as much as possible in 2020, then stronger Nationally Determined Contributions to kick-start the major transformations of economies and societies. If we don’t do this, the 1.5°C goal will be out of reach before 2030,” said Inger Andersen, UNEP’s Executive Director

G20 nations collectively account for 78 per cent of all emissions, but only five G20 members have committed to a long-term zero-emission target. In the short-term, developed countries will have to reduce their emissions quicker than developing countries, for reasons of fairness and equity, says the report. Crucially, the report says all nations must substantially increase ambition in their Nationally Determined Contributions (NDCs), as the Paris commitments are known in 2020 and follow up with policies and strategies to implement them

Each year, the Emissions Gap Report assesses the gap between anticipated emissions in 2030 and levels consistent with the 1.5°C and 2°C targets of the Paris Agreement. The report finds that greenhouse gas emissions have risen 1.5 per cent per year over the last decade. Emissions in 2018, including from land-use changes such as deforestation, hit a new high of 55.3 gigatonnes of CO₂ equivalent

To limit temperatures, annual emissions in 2030 need to be 1 gigatonne of CO₂ equivalent lower than current unconditional NDC imply for the 2°C goal; they need to be 32 gigatonnes lower for the 1.5°C goal. On an annual basis, this means cuts in emissions of 7. per cent per year from 2020 to 2030 to meet the 1.5°C goal and 2.7 per cent per year for the 2°C goal.

Drug Price Control Order

National body mulls cap on price of de-addiction drug (The Tribune: 20191127)

<https://www.tribuneindia.com/news/national-body-mulls-cap-on-price-of-de-addiction-drug/866480.html>

The National Pharmaceutical Pricing Authority (NPPA) is planning to control Punjab's de-addiction drug mafia's Rs 1,000-crore worth business.

Acting on the issue taken up by the state government, the NPPA is planning to place de-addiction drug buprenorphine under the Drug Price Control Order. The NPPA is a government regulatory agency that controls the prices of essential pharmaceutical drugs in India.

Sources said the issue was taken up with the authority by the state. In a meeting held on November 20 between the NPPA and the state government, the authority has agreed to control the price of buprenorphine.

Sources said NPPA chairperson Shubhra Singh has agreed to the state government's proposal. The state government argued the case on the pretext that even the World Health Organisation placed buprenorphine in the list of essential medicines and considered it a human right in 2005.

Anurag Aggarwal, Principal Secretary, Health, said though the state government has capped the price of de-addiction drugs on its own in the state, the government is concerned about the neighbouring states on which they don't have any control.

As per the last list, there were over 340 drugs, the prices of which was controlled by the NPPA.

The business of buprenorphine is so huge in the state that a total of six crore tablets are dispensed every year. The private de-addiction centres alone sell 4.5 crore tablets every year. And the government centres dispense 1.5 crore tablets. The government Outdoor Opioid Assistance Treatment clinics dispense the medicine free of cost.

However, private centres till recently were selling a strip of 10 tablets for around Rs 275. Some time back, the government capped the price to Rs 70 per strip. However, the de-addiction centres have found other ways to fleece patients like charging hefty counselling and consultation fees from them.

Now, the drug should be brought under price control and the MRP should be mentioned lesser. But the decision regarding this can only be taken by NPPS.

Vector-borne diseases

‘Over 200 cases of vector-borne diseases reported last week’ (The Hindu: 20191127)

<https://www.thehindu.com/news/cities/Delhi/over-200-cases-of-vector-borne-diseases-reported-last-week/article30090872.ece>

Over 200 cases of vector-borne diseases were reported in Delhi last week, the latest report compiled by the South Delhi Municipal Corporation (SDMC) stated.

Out of these, 170 were dengue, 36 chikunguniya and 11 malaria cases. With this, the total number of malaria cases have gone up to 672, which is the most number of cases in single year since 2014, a review of data shared by the SDMC showed. On the other hand, the total number of dengue cases stood at 1,644 and is the lowest since 2015. Also, this year no dengue deaths have been reported.

In their efforts to keep a check on such diseases, the municipal corporations said that they have visited up to 3.3 crore houses to check on mosquito breeding and sprayed pesticides in over 1.8 crore houses. During their visits, they found that about 1.7 lakh households have positive conditions for mosquito breeding and about 1.3 lakh houses were sent legal notices.

Swachh Bharat programme

Not so swachh: On sanitation goals (The Hindu: 20191127)

<https://www.thehindu.com/opinion/editorial/not-so-swachh/article30090214.ece>

Sanitation cannot be a separate ideal without reference to other forms of deprivation

India’s high-profile Swachh Bharat programme has won it plaudits globally for its goal of providing sanitation to all, but as new survey data from the National Statistical Office (NSO) show, it remains a work in progress. The quest to equip houses in the countryside with a toilet has led to an expansion, but there was a deficit of about 28% as of October last year and not 5% as the Swachh Bharat Abhiyan (Gramin) had claimed. The declaration that the country has ended open defecation in its rural areas, made to international acclaim on Mahatma Gandhi’s 150th birth anniversary by Prime Minister Narendra Modi, must return to the wish

list, going by this survey. It is extraordinary that many States that were declared to be free of open defecation simply did not qualify for the status, according to the NSO data. The Centre has disputed the survey results, but it should ideally treat it as a fresh assessment of how much ground is yet to be covered. The data could help it review performance in States such as Jharkhand, Tamil Nadu and Rajasthan, where the lack of toilets is reported to be higher than the national average. More fundamentally, the survey provides an opportunity to review other social determinants such as education, housing and water supply which have a strong influence on adoption of sanitation. It would be pointless to pursue sanitation as a separate ideal, if communities are unable to see its benefits due to overall deprivation.

The Central government has been reiterating its claims on rural India becoming entirely open defecation-free (ODF) on the basis of declarations made by States. Just last week, the Ministry of Jal Shakti said the coverage in 5,99,963 villages had risen from 38.7% in 2014, to 100% this year. It is indisputable that the number of toilets has gone up significantly, and for which taxpayers remitted about ₹20,600 crore as a cess since 2015, until the introduction of the Goods and Services Tax. Yet, there is evidence to show that this has not translated into use everywhere. The NSO survey results add a new dimension, since they controvert data relied upon by the Swachh Bharat Abhiyan on ODF. It will take a marathon programme to bring all-round development to India's villages, which have not really benefited from years of fast-paced economic growth. Rural housing and water supply are key to bringing toilet access to all, and it is doubtful whether the 2.95 crore subsidised dwellings targeted to be built by 2022 under the government's flagship housing programme can bridge the shortfall. It is well-recognised that development indices are low in some States, and local bodies lack the capacity and resources to bring universal sanitation even where political will is present. Sustained work to eliminate black spots in coverage and a massive urban programme are critical to ending open defecation and universalising toilet access.

Parkinson's disease

Study links some antibiotics to a raised risk of Parkinson's disease (Medical News Today: 20191127)

<https://www.medicalnewstoday.com/articles/327132.php#5>

Scientists have found a link between the use of oral antibiotics and the risk of Parkinson's disease. They suggest that the connection could be due to the drugs' impact on gut microbes.

New research finds a link between antibiotics and the risk of Parkinson's disease.

The findings also suggest that up to 15 years can elapse between antibiotic exposure and the emergence of any Parkinson's disease symptoms.

The strongest links were for macrolides and lincosamides. Doctors prescribe oral dosages of these common antibiotics to fight a range of microbial infections.

A paper on the new study, by researchers at Helsinki University Hospital in Finland, appears in a recent issue of the journal *Movement Disorders*.

The discovery follows earlier research that found that people with Parkinson's disease often have altered gut microbes, for reasons that were unclear. In addition, the alterations often preceded the presentation of Parkinson's symptoms.

Those earlier studies found that changes in the gut that are typical in Parkinson's disease can occur 2 decades before diagnosis.

People with intestinal conditions such as irritable bowel syndrome, constipation, and inflammatory bowel disease have a higher risk of Parkinson's disease.

"The link between antibiotic exposure and Parkinson's disease fits the current view that in a significant proportion of patients the pathology of Parkinson's may originate in the gut, possibly related to microbial changes, years before the onset of typical Parkinson's motor symptoms," says senior study author Dr. Filip Scheperjans, a neurologist at Helsinki University Hospital.

"The discovery may also have implications for antibiotic prescribing practices in the future," he adds.

Parkinson's disease and the gut

Parkinson's is a condition that kills dopamine cells in the substantia nigra. This is a part of the brain that controls movement. This damage causes symptoms including stiffness, shaking, and problems with balance, all of which are common in Parkinson's.

People with Parkinson's disease may also develop other symptoms, such as depression, mood changes, sleep disruption, skin problems, constipation, and urinary difficulties.

The symptoms of Parkinson's usually take years to develop, and they can progress differently in different people.

According to the Parkinson Foundation, around 10 million people have Parkinson's disease worldwide. In the United States, health professionals are diagnosing it in around 60,000 people every year.

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More and more studies are finding links between changes to gut microbes and brain conditions such as multiple sclerosis, autism, schizophrenia, depression, and Parkinson's disease.

However, there is still much debate about whether gut microbe changes actually cause these conditions or merely accompany them.

First study of antibiotics and Parkinson's

In their study paper, Dr. Scheperjans and colleagues note that researchers have observed gut microbe changes in early and established Parkinson's disease, and that antibiotics can have long-term impacts on microbe populations.

However, until their new study, nobody had actually investigated whether or not there was a direct link between antibiotic exposure and the risk of Parkinson's disease.

So, to address this gap, they carried out a case-control study using nationwide medical data from Finland.

From national registries, the team identified people who had received a diagnosis of Parkinson's disease during 1998–2014. They also used national databases to source individual purchases of oral antibiotics during 1993–2014.

They then applied statistical methods to these data to search for links between previous oral antibiotic exposure and Parkinson's disease.

The analysis compared antibiotic exposure in 13,976 people who received a diagnosis of Parkinson's disease with that of 40,697 controls who did not. It only compared people with Parkinson's with controls of the same sex, age, and residential location.

The team also categorized antibiotic exposure according to dosage, chemical composition, mechanism of action, and antimicrobial range.

Further studies need to confirm the findings

The results suggest that exposure to macrolides and lincosamides had the strongest links to Parkinson's disease risk.

The analysis also revealed links to a raised risk of Parkinson's disease for anti-anaerobics and tetracyclines up to 15 years before diagnosis. There were also links for sulfonamides, trimethoprim, and antifungal drugs up to 5 years before diagnosis.

The researchers call for further investigations to confirm these findings.

If future studies come to the same conclusions, increased susceptibility to Parkinson's disease could join the list of potential hazards that doctors will need to consider when prescribing antibiotics.

"In addition to the problem of antibiotic resistance, antimicrobial prescribing should also take into account their potentially long-lasting effects on the gut microbiome and the development of certain diseases."

Dr. Filip Scheperjans

Diet/Nutrition

Peas and beans: Can they improve heart health? (Medical News Today: 20191127)

<https://www.medicalnewstoday.com/articles/327090.php#5>

A recent review and meta-analysis focus on the role of legumes in heart health. Taking data from multiple studies and earlier analyses, the authors conclude that legumes might benefit heart health but that the evidence is not overwhelming.

A new analysis looks at the links between legume intake and heart health.

It is a no-brainer that nutrition plays a pivotal role in health. At one end of the spectrum, it is common knowledge that eating a diet that is high in sugar, salt, and fat increases the risk of poorer health outcomes.

At the other end, eating a balanced diet that is rich in fresh fruits and vegetables is likely to reduce the risk of certain conditions.

However, drilling down to the effect of individual foods on specific conditions is notoriously difficult.

The authors of a recent review in *Advances In Nutrition* have taken up that gauntlet. They wanted to understand how legumes, which include beans, peas, and lentils, affect heart health.

In particular, they focused on cardiovascular disease (CVD) risk and CVD mortality. CVD includes coronary heart disease, myocardial infarction, and stroke. They also investigated legume consumption in relation to diabetes, hypertension, and obesity.

Study co-author Dr. Hana Kahleova, from the Physicians Committee for Responsible Medicine in Washington, DC, explains why investigating heart health is such a pressing matter, stating that "[c]ardiovascular disease is the world's leading — and most expensive — cause of death, costing the United States nearly 1 billion dollars a day."

Why legumes?

Legumes are rich in fiber, protein, and micronutrients but contain very little fat and sugar. Due to this, as the authors of the current study explain:

"The American Heart Association, Canadian Cardiovascular Society, and European Society for Cardiology encourage dietary patterns that emphasize intake of legumes" to reduce levels of low-density lipoprotein (LDL, or bad) cholesterol, lower blood pressure, and manage diabetes.

Recently, the European Association for the Study of Diabetes commissioned a series of systematic reviews and meta-analyses. Using the results of these studies, they hope to update current recommendations on the role of legumes in preventing and treating cardiometabolic diseases.

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In the current review, the authors compared data on people with the lowest and highest intake of legumes. They found that "dietary pulses with or without other legumes were associated with an 8%, 10%, 9%, and 13% decrease in CVD, [coronary heart disease], hypertension, and obesity incidence, respectively."

However, they found that there was no association between legume intake and the incidence of myocardial infarction, diabetes, or stroke. Similarly, they identified no relationship between legumes and mortality from CVD, coronary heart disease, or stroke.

Although the team identified a positive relationship between consuming higher quantities of legumes and a reduced risk of certain cardiovascular parameters, the authors' conclusions are still relatively muted. They write:

"The overall certainty of the evidence was graded as 'low' for CVD incidence and 'very low' for all other outcomes."

They continue, "Current evidence shows that dietary pulses with or without other legumes are associated with reduced CVD incidence with low certainty and reduced [coronary heart disease], hypertension, and obesity incidence with very low certainty."

Nutritional difficulties

One of the primary issues that scientists face when investigating nutrition and health is residual confounding. For instance, if someone eats more legumes than average, they might also eat more vegetables in general. Conversely, someone who eats few legumes might eat less fruit and vegetables overall.

If this is the case, it is difficult to pin any measured benefits on the legumes, specifically. They might simply be due to the increase in plant food overall.

Similarly, someone who eats particularly healthfully might also be more likely to exercise. Understanding whether the legume, the overall dietary patterns, or the entire lifestyle influences any given health outcome is verging on impossible.

Another problem centers around self-reporting food intake. Human memory, as impressive as it is, can make mistakes. One paper Trusted Source on this topic states that self-reports of food intake "are so poor that they are wholly unacceptable for scientific research."

Studies attempt to minimize the influence of these factors as much as possible, but it can be challenging. As the authors explain, "Despite the inclusion of several large, high quality cohorts, the inability to rule out residual confounding is a limitation inherent in all observational studies."

Despite the difficulties, overall, the authors believe that increasing legume intake could improve the heart health of the population of the United States.

"Americans eat less than one serving of legumes per day, on average. Simply adding more beans to our plates could be a powerful tool in fighting heart disease and bringing down blood pressure."

Co-author Dr. Hana Kahleova

Although those studying nutrition and disease face many challenges, it is important to continue this line of investigation. Currently, in the U.S., 1 in 4 deaths Trusted Source relate to cardiovascular disease. If a simple change in diet could reduce the risk even a small amount, it might make a significant difference at the population level.

Sleep Disorder

Sleep loss may contribute to heart disease in those with low incomes (Medical News Today: 20191127)

<https://www.medicalnewstoday.com/articles/327127.php#4>

People who are in a precarious financial position have an increased risk of cardiovascular disease. New research reveals that chronic sleep loss may contribute to this risk in the context of social inequality.

Short sleep may help explain why people with low incomes are at higher risk of heart disease, especially in the case of men.

Last year, research featured in the journal *Circulation* of the American Heart Association explained that individuals with low socioeconomic status are more likely to develop cardiovascular disease than those who are in a less precarious financial condition.

And as recently as April of this year, a study published in *The Lancet: Global Health* Trusted Source found that people living in low income countries face a higher risk of cardiovascular disease.

Many biological and psychosocial factors can explain the link between low socioeconomic status and a higher risk of heart problems, such as anxiety and high blood pressure.

But in a new study, researchers affiliated with the Lifepath Consortium — a research consortium aiming to understand better how socioeconomic differences impact health — have gathered evidence that poor sleep may significantly contribute to the risk of cardiovascular disease in people at a financial disadvantage.

The team reports and explains the new findings in a study paper that features in the journal *Cardiovascular Research*. In the study paper, the researchers outline why they were interested in the potential link between socioeconomic status, sleep duration, and heart disease, explaining that:

"First, individuals who experienced social adversity across the life-course report sleep-related problems more frequently [...] In particular, people working in shifts, living in deprived neighborhoods, or who have experienced adversity in childhood show an increased prevalence of sleep-related disorders. Second, inadequate sleep has been associated with an increased risk of cardiovascular disease."

Poor sleep explains 13.4% of the link in men

In the current study, the investigators analyzed data from a total of 111,205 participants across eight different cohorts from four countries: France, the United Kingdom, Switzerland, and Portugal.

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The team split the participants into different socioeconomic categories — low, middle, or high income — based on the participants' occupation, as well as the occupation of each participant's father.

Thanks to medical exams and self-reported measures, the researchers also had access to the participants' history of coronary heart disease and cardiovascular events. The investigators also looked at measures of sleep duration, categorizing them as recommended sleep (6–8.5 hours per night), long sleep (over 8.5 hours per night), and short sleep (fewer than 6 hours per night).

To understand how, and if sleep loss was likely to contribute to cardiovascular problems in people of different incomes, the researchers used mediation analysis, a specialized statistical method.

The researchers' findings indicated that insufficient sleep might play a role in the heightened risk of cardiovascular disease in people of lower socioeconomic status. However, the impact seemed to vary by biological sex.

The researchers note that short sleep likely explains 13.4% of the link between occupations associated with lower socioeconomic status and coronary heart disease in men.

Although women in lower socioeconomic groups also get heart disease, it does not appear to be linked to sleep in the same way as in men. The researchers hypothesize that this may be because most women already face a much higher burden of responsibilities outside of their professional occupation that independently affects their sleep and their health.

According to study co-author Dusan Petrovic from the University Centre of General Medicine and Public Health in Lausanne, Switzerland, "Women with low socioeconomic status often combine the physical and psychosocial strain of manual, poorly paid jobs with household responsibilities and stress, which negatively affects sleep and its health-restoring effects compared to men."

Based on the study findings, the researchers argue that societies must address many issues that lie at their cores in order to help every single one of their members to achieve adequate sleep as much as possible.

"Structural reforms are needed at every level of society to enable people to get more sleep," advises Petrovic.

"For example, attempting to reduce noise, which is an important source of sleep disturbances, with double glazed windows, limiting traffic, and not building houses next to airports or highways."

Dusan Petrovic

Encephalitis

Should we worry about an eastern equine encephalitis outbreak? (Medical News Today: 20191127)

<https://www.medicalnewstoday.com/articles/327116.php#1>

Eastern equine encephalitis (EEE) is a potentially deadly illness caused by a mosquito-borne virus. While infections in humans have been rare in the United States, an upsurge in reported cases this year has caused experts to wonder whether EEE could be the next Zika or West Nile.

A rare virus has been infecting more and more people in the U.S. Experts are calling for a strategy to address a potential outbreak.

The EEE virus is carried by mosquitoes — through mosquito bites, it can be transmitted to equines, such as horses or zebras, and to humans.

This virus has been present in the U.S. for centuries, though it has rarely infected people.

However, if it does infect a person and the infection evolves into a severe form of the disease, EEE can be deadly.

Only a handful of these infections in humans had been reported throughout the U.S. each year for the past few years.

According to dataTrusted Source from the Centers for Disease Control and Prevention (CDC), last year there were six reported cases of EEE and five in 2017.

Until this year, the highest annual number of EEE cases in the country over the last decade had been 15, in 2012.

But as of November, this year has seen an upsurge in EEE cases in humans, including fatalities due to the illness. The CDC reportTrusted Source that there have been "36 confirmed cases of [EEE] virus disease [...] this year, including 14 deaths."

This situation has made some specialists wonder whether the EEE virus may not become the next threat to public health, much like the Zika or West Nile viruses.

'A new era' for mosquito-borne viruses?

Recently, experts from the National Institute of Allergy and Infectious Diseases (NIAID) published a commentary in The New England Journal of Medicine describing the EEE virus and how researchers plan to address this potential threat.

In the article — the first author of which is Dr. David Morens — the experts place EEE in the context of recent mosquito-borne virus (arbovirus) outbreaks worldwide.

"In recent years, the Americas have witnessed a steady stream of other emerging or reemerging arboviruses, such as dengue, West Nile, chikungunya, Zika, and Powassan, as well as increasing numbers of travel-related cases of various other arboviral infections," they write, warning that:

"This year's EEE outbreaks may thus be a harbinger of a new era of arboviral emergences."

Part of what makes the EEE virus potentially dangerous for humans is that its symptoms are sometimes indistinguishable from those of other viral infections. Some individuals report no symptoms at all in the initial stages of infection.

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The EEE virus takes 3–10 days to incubate inside a human host, and its — nonspecific — symptoms include fever, malaise, intense headaches, muscle aches, nausea, and vomiting.

Moreover, the specialists explain, EEE infections are difficult to diagnose with tests, as it is tricky to isolate the virus in samples of blood or spinal fluid. Yet, if neurologic symptoms of EEE do appear, these will be visible within approximately 5 days of infection.

And these, too, may be initially indistinguishable from the symptoms of viral meningitis [Trusted Source](#).

"However, [after this period,] rapid clinical progression ensues," the experts write. "By the time definitive serologic diagnosis is possible, within a week after infection, neurologic damage may already have occurred."

"An estimated 96% of people infected with EEE [virus] remain asymptomatic; however, of those who have symptoms, 33% or more die, and most of the rest sustain permanent, often severe, neurologic damage," the specialists report.

Worrying lack of a prevention strategy

So what can we do in the event of an EEE outbreak? So far, not much, according to Dr. Morens and colleagues. Currently, no known antiviral drugs are safe and effective in the treatment of this viral infection.

For the time being, people who become infected will receive no more than "supportive treatment [Trusted Source](#)," according to the CDC.

Some researchers have experimented with fighting the virus using monoclonal antibodies — artificially created antibodies that can help boost the immune response to a given pathogen. However, though this approach has shown some promise, scientists have, at this point, only tested it in animals.

Moreover, the monoclonal antibody treatment only appears to be effective if the researchers administer it to the animals before they become infected with the EEE virus.

Dr. Morens and colleagues believe that finding a vaccine for EEE would be an effective method of prevention, and some research has already gone into this.

"However," they note, "there may not be strong incentives to proceed to advanced development and licensure because of the nature of the disease: Outbreaks are rare, brief, and focal, and they occur sporadically in unpredictable locations, making it difficult to identify an appropriate target population for vaccination."

This is why the NIAID specialists are calling for a nationwide strategy for preventing an EEE outbreak before it gets the chance to become a reality.

"In the absence of vaccines or specific treatments, state and local health departments can provide early warning of imminent human infections by surveilling equids, birds, and mosquitoes," the team advises. Yet, "Even these blunt prevention tools are continuously threatened by underfunding of public health efforts."

"Sadly, the [U.S.] ability to control arboviral diseases is little better in 2019 than it was more than a century ago," Dr. Morens and colleagues warn.

"Though the best way to respond to these threats is not entirely clear, to ignore them completely and do nothing would be irresponsible," the specialists conclude.