



# DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
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## किडनी रोग

गुर्दों की सफाई (Hindustan:20190405)

[http://epaper.livehindustan.com/textview\\_21887\\_70704188\\_4\\_1\\_15\\_05-04-2019\\_1\\_1.html](http://epaper.livehindustan.com/textview_21887_70704188_4_1_15_05-04-2019_1_1.html)

किनको है किडनी रोगों का खतरा

अदरक का उपयोग दवा के रूप में वर्षों से होता आया है। इसमें मौजूद जिन्जेरॉल्स एक सक्रिय यौगिक और एंटी बैक्टीरियल एजेंट है, जो किडनी में बैक्टीरिया फैलना रोकता है। सूजन कम रखता है। .

के सेवन से शरीर में अतिरिक्त पदार्थों को बाहर करने में सहायता मिलती है और यह किडनी के काम में सहायता करती है। यह किडनी में बेकार चीजें जमा होने से रोकती है। अजवायन की जड़ से पेशाब ज्यादा बनती है, जिससे बेकार चीजें बाहर निकल जाती हैं। इसे किडनी को सक्रिय करने वाले टॉनिक के रूप में जाना जाता है। इसमें पोटैशियम और सोडियम भी प्रचुर होता है।

हल्दी भी ऐसी ही देसी दवाओं में है। इसमें करक्यूमिन नाम का एक अवयव होता है। यह हर तरह के माइक्रोब का विकास और विस्तार रोकता है तथा किडनी को स्वस्थ रखता है। .

घर की रसोई में ही अनेक मसाले व जड़ी-बूटियां मौजूद हैं, जिनका सेवन आसानी से किया जा सकता है। मसलन, लहसुन में एलिसिन तत्व होता है, जो शरीर में बैक्टीरिया संक्रमण व सूजन कम रखता है।

पिछले 15 सालों में किडनी रोगों के मामलों में दोगुना वृद्धि हुई है। बिगड़ती जीवनशैली और अस्वस्थ खान-पान इसकी बड़ी वजह है। शरीर से बेकार और विषैले तत्व बाहर निकालने की जिम्मेदारी किडनी की है और किडनी को साफ रखने की जिम्मेदारी हमारी। अच्छी बात यह है कि हम रोज प्राकृतिक तरीकों को अपनाकर किडनी को स्वस्थ रख सकते हैं। बता रहे हैं सत्काम दिव्य .

रीर से बेकार की चीजों को बाहर निकालने के लिए किडनी यानी गुर्दों की महत्वपूर्ण भूमिका होती है। किडनी शरीर में इलेक्ट्रोलाइट्स को संतुलित रखती है और हार्मोन बनने की प्रक्रिया में भी मदद करती है। गुर्दे, शरीर में सीने की हड्डियों के नीचे रीढ़ के दोनों ओर दो छोटे से अंग हैं। आम तौर पर अच्छा आहार लेने और पर्याप्त पानी पीने से आपकी किडनी ठीक रहती है। स्वस्थ गुर्दे खून को साफ करते हैं तथा बेकार चीजों को पेशाब के जरिए शरीर से बाहर कर देते हैं। ऐसा न होना किडनी में समस्याएं खड़ी कर देता है। घर में प्राकृतिक तरीकों से किडनी को सेहतमंद रखने के कई तरीके हैं। इससे गुर्दे मजबूत भी बनते हैं और उनमें विषैले तत्व जमा नहीं होते। कुछ तरीके जो इसमें आपकी मदद कर सकते हैं, इस प्रकार हैं... .

शरीर में पानी का स्तर बनाए रखें.

मस्तिष्क से लेकर लिवर (यकृत) तक को काम करने के लिए कम से कम 60 प्रतिशत पानी की जरूरत होती है। किडनी को पेशाब के साथ दूसरी गंदगी बाहर निकालने के लिए पानी की जरूरत होती है। पेशाब में मोटे तौर पर बेकार की चीजें होती हैं और इसके जरिए शरीर अवांछित और अनावश्यक चीजों से छुटकारा पाता है।

अगर आप कम पानी पीते हैं तो संभव है किडनी ठीक से काम न करे और किडनी में स्टोन यानी पत्थर बन जाए। इसलिए, आपकी दिनचर्या चाहे जितनी व्यस्त हो, यह बहुत जरूरी है कि अपनी किडनी को स्वस्थ रखने के लिए हर व्यक्ति रोज करीब पौने चार (3.70) लीटर पानी पिए। विभिन्न अध्ययनों में महिलाओं के लिए यह मात्रा 2.7 लीटर यानी लगभग पौने तीन लीटर तय की गई है। पुरुषों की तुलना में महिलाओं में पानी कम पीने के मामले ज्यादा सामने आते हैं। .

किडनी के संपूर्ण स्वास्थ्य को बेहतर रखने के लिए सेब का सिरका भी फायदेमंद रहता है। सेब का सिरका प्रतिरक्षा प्रणाली को मजबूत करता है और शरीर से जो चीजें बेकार व अतिरिक्त होती हैं, उन्हें बाहर निकालने में मदद करता है। इस पेय में साइट्रिक और फॉस्फोरस एसिड होता है। ये दोनों तत्व उन पदार्थों को तोड़ते हैं, जो शरीर में पथरी बनाते हैं। .

इन्हें करें खान-पान में शामिल.

शोधकर्ताओं ने पाया है कि रेजवेरेट्रॉल तत्व किडनी की सूजन को कम करता है। यह तत्व अंगूर, मूंगफली और कुछ बेरी में मौजूद रहता है। ऐसा ही एक अध्ययन उन चूहों पर किया गया, जो कि पॉलिसिस्टिक किडनी डिजीज के शिकार थे। इस तत्व का असर उनमें सकारात्मक देखा गया। मुट्ठी भर स्वादिष्ट लाल अंगूर दोपहर में खाना फायदा पहुंचाता है। अध्ययन से यह भी संकेत मिलता है कि नियमित क्रैनबेरीज खाना भी किडनी के लिए फायदेमंद होता है। इन्हें आप सलाद आदि में खा सकते हैं। .

नींबू, संतरे के जूस और तरबूज के रस आदि में विटामिन सी यानी साइट्रिक एसिड या साइट्रेट होता है। साइट्रेट तत्व किडनी में पथरी की बीमारी को रोकता है। माना जाता है यह तत्व पेशाब में मौजूद कैल्शियम से मिलकर उसे महीन कर देता है, जिससे कैल्शियम एक जगह जमा नहीं होता और किडनी के रोग की आशंका कम होती है। रोज एक कप फलों का ताजा रस पीने से शरीर में पानी का स्तर बनाए रखने में मदद मिलती है।

समुद्री शैवाल पर हुए एक अध्ययन में इसका असर किडनी, लिवर और पैक्रियाज पर अच्छा देखा गया। खासतौर पर डायबिटीज के कारण लिवर और किडनी को होने वाले नुकसान में कमी होती है। .

अंगूर का रस शरीर से विषाक्त तत्वों को बाहर निकालने में मदद करता है और किडनी को ठीक रखता है। रात में मुनक्के भिगोकर सवेरे उसका पानी कुछ दिनों तक नियमित पीने से भी किडनी के रोगों में लाभ मिलता है। .

स्ट्राबेरी, रसभरी, जामुन और करौंटे जैसे फल किडनी से यूरिक एसिड और यूरिया को बाहर निकालने में मदद करते हैं। इन फलों में पर्याप्त मात्रा में एंटीऑक्सीडेंट होते हैं। इससे मूत्र संक्रमण की आशंका भी कम होती है। .

नियमित ग्रीन टी पिएं.

बाजार में किडनी साफ करने वाली चाय उपलब्ध हैं। इसका नियमित सेवन किडनी को ठीक करता है। नेटल चाय, डैनडेलियन चाय और तुलसी चाय कुछ ऑर्गेनिक चाय हैं, जो आपकी किडनी को स्वस्थ बनाए रखने में सहायता करती हैं। नियमित ग्रीन टी का सेवन शरीर से जहरीले तत्वों को बाहर करने में मदद करता है। दिनभर में दो से तीन कप ग्रीन टी ले सकते हैं।

मैदा, नमक व चीनी खाएं कम.

पोषण से भरपूर भोजन और नियमित व्यायाम अच्छी सेहत के साथ वजन भी काबू रखता है, जो किडनी को स्वस्थ रखने के लिए जरूरी है। मैग्नीशियम किडनी के लिए जरूरी तत्व है। मैग्नीशियम वाली चीजें, जैसे कि गहरे रंग की सब्जियों का नियमित सेवन शरीर में कई रोगों के लिए फायदेमंद है। अगर किडनी रोगों की समस्या रहने लगी है तो खाने में नमक, चीनी, सोडियम और प्रोटीन की मात्रा घटाना जरूरी होता है। इससे शरीर में पानी का संतुलन बनाए रखने में भी मदद मिलती है। .

कुल मिलाकर शरीर को हल्का और सुपाच्य भोजन ही दें। अंडे की सफेदी में एमीनो एसिड होता है, इसमें फॉस्फोरस कम मात्रा में होता है, जो किडनी को स्वस्थ रखने में मदद करता है। कैफीन, एल्कोहल, चॉकलेट, धूम्रपान और प्रोसेस्ड चीजों जैसे चीनी, नमक, मैदा (सफेद पास्ता, बिस्कुट, सफेद ब्रेड आदि) से बचें। प्रोसेस्ड फूड को पचाने में शरीर को मेहनत भी अधिक करनी पड़ती है। .

दर्द निवारक दवाएं और किडनी रोगों की दवाएं डॉक्टर की सलाह से ही लें.

वजन नियंत्रित रखें .

खान-पान की स्वस्थ आदतें अपनाएं.

धूम्रपान व एल्कोहल का सेवन न करें.

सक्रिय जीवनशैली अपनाएं .

रक्तचाप काबू रखें.

30 के बाद नियमित जांच कराएं.

मधुमेह नियंत्रित रखें.

परिवार में किडनी रोगों का इतिहास जानें.

करोड़ के लगभग लोग दुनिया भर में किसी न किसी रूप में किडनी रोगों से पीड़ित हैं। .

करोड़ 30 लाख लोग दुनिया में गंभीर किडनी रोगों से पीड़ित हैं। भारत में 90 प्रतिशत लोग किडनी रोगों का खर्चा वहन करने में असमर्थ हैं। .

लाख मौतें हर साल गंभीर किडनी रोगों से होती हैं। यह छठा तेजी से बढ़ता मौत का कारण है।

करोड़ के लगभग लोग दुनिया भर में किसी न किसी रूप में किडनी रोगों से पीड़ित हैं। .

करोड़ के लगभग लोग दुनिया भर में किसी न किसी रूप में किडनी रोगों से पीड़ित हैं।

## ऑटिज्म

**बढ़ने से रोक सकते हैं ऑटिज्म (Hindustan:20190405)**

[http://epaper.livehindustan.com/textview\\_21887\\_70236114\\_4\\_1\\_15\\_05-04-2019\\_1\\_1.html](http://epaper.livehindustan.com/textview_21887_70236114_4_1_15_05-04-2019_1_1.html)

ऑटिज्म, तंत्रिका तंत्र के विकास से जुड़ी समस्या है, जिसमें बच्चों के मानसिक विकास पर असर पड़ता है। ऑटिज्म एक व्यापक स्पेक्ट्रम विकार है। इसमें लक्षणों और उनकी गंभीरता की एक लंबी कड़ी दिखाई देती है। इससे पीड़ित बच्चों को दूसरों से बातचीत करने में समस्या आती है। इससे उनका सामाजिक, निजी और प्रोफेशनल जीवन प्रभावित होता है। उन्हें दूसरों के भावों को समझने या अपने जाहिर करने में समस्या होती है। वो कुछ आदतों को बार-बार दोहराते हैं। .

अधिकतर बच्चों में इसके लक्षण 18-24 माह की उम्र में दिखने लगते हैं। ऑटिस्टिक बच्चों का आईक्यू स्तर दूसरे सामान्य बच्चों की तुलना में औसत से कम या ज्यादा होता है, जिसे एस्पेर्जर सिंड्रोम कहते हैं। ऐसे में उम्र विशेष में सामान्य बच्चे जो काम आसानी से कर लेते हैं, ऑटिस्टिक बच्चे नहीं कर पाते। मस्तिष्क और शरीर में तारतम्य के अभाव के कारण उन्हें पेट भरने का एहसास ही नहीं होता। नतीजा, पाचन में गड़बड़ी, मोटापा, शुगर जैसे रोगों का डर रहता है।

लक्षण.

पुकारने पर जवाब न दे पाना। .

भावनाएं जाहिर न कर पाना .

दूसरों से नजरें न मिला पाना।.

दूसरे लोगों से परेशानी होना।.

अकेले रहना पसंद करना।.

गलत चीजों में रुचि बढ़ना।

खास टोन या लय के साथ बोलना, जैसे गाना गाने के अंदाज में बात करना या रोबोट की तरह भाषण देना।

नया सीखने में परेशानी होना .

लगातार हिलना-डुलना। कुछ हरकतें बार-बार करना, जैसे गोल-गोल घूमना, कुछ खास वाक्य बोलना।

प्रकाश, ध्वनि, स्वाद या छूने के प्रति अतिसंवेदनशीलता .

कारण.

ऑटिज्म का सही कारण नहीं पता चल पाया है। कई मामलों में गर्भावस्था में मां को किसी तरह का इंफेक्शन होना या उनका किसी तरह का नशा करना, गर्भस्थ शिशु में मानसिक विकार की आशंका को बढ़ा सकता है। डिलिवरी के दौरान बच्चे के दिमाग पर दबाव या चोट लगने से मस्तिष्क की कोशिकाएं खराब होने पर यह समस्या आ सकती है। इसके अलावा जिन गर्भवती महिलाओं को मोटापा, मधुमेह या थाइरॉइड की समस्या है, उनके बच्चों में भी ऑटिज्म का खतरा बढ़ जाता है। आनुवंशिक कारण भी इसकी वजह हो सकते हैं। \*

क्या है उपचार.

ऑटिस्टिक बच्चे के विशिष्ट व्यवहार को पहचान कर जितनी जल्दी हो सके, डॉक्टर से संपर्क करें। मूलतः ये थेरेपी अपनाई जाती हैं-

ऑक्यूपेशनल थेरेपी : ऑटिस्टिक बच्चों को कौशल विकास की स्पेशल एजुकेशन दी जाती है, ताकि वे आत्मनिर्भर बन सकें। रोजाना के छोटे-छोटे कामों से लेकर उन्हें लिखना-पढ़ना सिखाया जाता है।

स्पीच थेरेपी: इससे बच्चों की बोलने की क्षमता विकसित की जाती है। दूसरों के साथ बातचीत करना, पूरे हाव-भाव के साथ अपनी बात रखना इसके तहत सिखाते हैं। इससे बच्चे धीरे-धीरे बोलने लगते हैं।

बिहेवियरल थेरेपी: इसके अंतर्गत बच्चों को अच्छा व्यवहार करने के तरीके और समाज में सामंजस्य बिठाने की ट्रेनिंग दी जाती है। धीरे-धीरे बच्चों का आत्मविकास किया जाता है।

दवाएं: यूं किसी तरह की दवाएं नहीं दी जाती। पर कई बार पीड़ित बच्चे की हाइपरएक्टिविटी को काबू करने और बच्चे की एकाग्रता बढ़ाने के लिए कुछ दवाएं दी जाती हैं।

घर की भूमिका: माता-पिता के साथ ही घर में बच्चे से सभी का रवैया अच्छा होना जरूरी है। .

आहार का ध्यान : ज्यादा खाने की आदत से होने वाली परेशानी से बचाने के लिए बच्चों को ज्यादा शुगर व कार्बोहाइड्रेट वाली चीजें कम दें। मल्टीग्रेन अनाज, बादाम, अखरोट व नारियल पानी खास फायदेमंद रहते हैं। .

रजनी अरोड़ा

आंकड़ों के अनुसार दुनियाभर में हर 68वां व्यक्ति ऑटिज्म से पीड़ित है। देश में ही करीब 1.8 करोड़ बच्चे इसके शिकार हैं। सामान्य दिखने वाले ऐसे बच्चों को सही उपचार व खास देखभाल, दोनों की बेहद जरूरत होती है।

## **अग्नाशय कैंसर**

**50 तक की उम्र के मोटे लोगों को अग्नाशय कैंसर का खतरा ज्यादा (Hindustan:20190405)**

<https://www.livehindustan.com/health/story-pancreatic-cancer-odds-tied-to-weight-before-50-years-2474757.html>

पचास की उम्र से पहले मोटापे से ग्रस्त होने से अग्नाशय (पैंक्रियाज) के कैंसर का खतरा बढ़ सकता है। एक शोध में यह दावा किया गया है।

अग्नाशय कैंसर के मामले अभी ज्यादा नहीं हैं। दुनियाभर में सिर्फ तीन फीसदी लोगों को आग्नाशय का कैंसर होता है। हालांकि, यह कैंसर जानलेवा होता है। इसमें व्यक्ति के जीवित रहने की संभावना पांच साल होती है। इस कैंसर से पीड़ित सिर्फ 8.5 फीसदी लोग ही बच पाते हैं। अमेरिकन कैंसर सोसाइटी के वैज्ञानिक इरिक जे जैकोब्स ने कहा, 2000 के बाद से आग्नाशय के कैंसर के मामलों में तेजी से बढ़ोतरी हो रही है। यह कैंसर मुख्यत धूम्रपान के कारण होता है। हम इसके मामलों में हो रही बढ़ोतरी से परेशान हैं क्योंकि पिछले कुछ सालों में धूम्रपान के आंकड़ों में कमी आई है।

पुराने शोधों में कहा गया था कि अग्नाशय कैंसर और अधेड़ उम्र में बढ़ते वजन के बीच सीधा संबंध है। लेकिन, नए शोध के अनुसार ज्यादा उम्र की तुलना में कम उम्र में बढ़ते मोटापे के कारण भविष्य में अग्नाशय कैंसर का खतरा बढ़ सकता है। शोधकर्ताओं की टीम ने 9 लाख से ज्यादा लोगों पर शोध किया। इनमें से कुछ लोग 30 साल के थे और कुछ 70 से 80 की उम्र के बीच के थे।

## अवसाद

**शोध: सिर्फ जीन नहीं बता पाते अवसाद की असल वजह (Hindustan:20190405)**

<https://www.livehindustan.com/health/story-depression-can-not-be-predicted-by-few-genes-study-2474752.html>

अमेरिकी वैज्ञानिकों ने दावा किया है कि सिर्फ जीन के अध्ययन से अवसाद और तनाव के कारणों का पता नहीं लगाया जा सकता। एक शोध में कहा गया है कि ऐसा कोई खास जीन का सेट नहीं होता जिसकी वजह से लोगों में तनाव या अवसाद होने का खतरा बढ़ता है।

शोधकर्ताओं की टीम ने छह लाख लोगों के जेनेटिक डाटा का अध्ययन कर यह पता लगाया कि कोई भी खास जीन व्यक्ति में अवसाद पैदा करने के लिए जिम्मेदार नहीं होता और न ही उस जीन के इलाज से अवसाद को कम किया जा सकता है। पुराने कई शोधों में बताया गया है कि जींस के कुछ खास सेट अवसाद को बढ़ावा देने का काम करते हैं। ऐसे में अगर उन जींस की पहचान कर ली जाए तो अवसाद के खतरे को कम किया जा सकता है। लेकिन, नए शोध के अनुसार ऐसा संभव नहीं है।

यूनिवर्सिटी ऑफ कोलेराडो के शोधकर्ता रिचर्ड बॉर्डर ने कहा, हमारे शोध के परिणामों के अनुसार अवसाद पैदा करने वाले किसी खास जीन की पहचान करना संभव नहीं है।

## 20-minute nature pill to lower stress

20 MINUTES IN A PLACE WHERE YOU FEEL CONNECT WITH NATURE DAILY CAN LOWER YOUR STRESS LEVELS

■ Scientists recommend 'nature-pills' to boost well-being.

■ Study in *Frontiers in Psychology* established the most effective dose of an urban nature experience for the first time.

■ Nature pills could be a low-cost solution to reduce negative health impacts from growing urbanisation, indoor lifestyles due to screen viewing.

■ An experiment was designed to give a realistic estimate of an effective dose to assist healthcare practitioners looking for evidence-based guidelines on what exactly to dis-

"We know that spending time in nature reduces stress, but until now it was unclear how much is enough, how often to do it, or even what kind of nature experience will benefit us,"

**MARYCAROL HUNTER**  
associate professor, University of Michigan in the US

■ Over eight-weeks, participants asked to take a nature pill with a duration of 10 min or more, at least three times a week.

■ Cortisol levels, a stress hormone, were measured from saliva samples once every two weeks.

■ Participants were free to choose the time of day, duration, and the place of their nature experience,

■ A few constraints to minimise factors known to influence stress: Take the nature pill in daylight, no aerobic exercise, and avoid the use of social media, internet, phone calls, conversations and reading



## मधुमेह

**शरीर को बनाए निरोगी, नीम के पत्तों को सुबह खाली पेट खाने से खत्म होते हैं ये रोग (Dainik Jagran:20190405)**

<https://www.jagran.com/news/national-healthy-body-made-neem-leaves-eating-empty-stomach-in-the-morning-end-disease-19102031.html>

नीम को संस्कृत में अरिष्ट कहा जाता है। इसका मतलब होता है कभी न खराब होने वाला। नीम एक ऐसा पेड़ है जिसे लाखों दुखों की एक दवा कहते हैं।

नई दिल्ली, जागरण स्पेशल। नीम शरीर के लिए अतिगुणकारी है। नीम को भारत में गांव का दवाखाना कहा जाता है। नीम का प्रयोग आयुर्वेद में पिछले चार हजार सालों से किया जा रहा है। नीम के तने, पत्ती, जड़, छाल और कच्चे फलों में अनेकों शक्ति वर्धक रासायन पाए जाते हैं। नीम की छाल खासतौर पर मलेरिया और त्वचा संबंधी बीमारी के लिए बहुत उपयोगी है।

नीम के सभी हिस्सों को औषधि के रूप में इस्तेमाल किया जाता है। नीम के पत्तों को आसानी से प्रयोग किया जा सकता है। कुछ लोग नीम के पत्तों को कच्चा ही चबाते हैं। वहीं, कुछ लोग पत्तों को पानी में उबाल कर नमक के साथ खाते हैं। पत्तों में विभिन्न जीवाणुरोधी रसायन होते हैं। बता दें की नीम के पत्तों को भारत से बाहर 34 देशों में निर्यात किया जाता है। अमेरिका में नीम को चमत्कारी वृक्ष कहा जाता है।

शहरों में तेजी से फैल रही मधुमेह (Diabetes) की बीमारी को दूर रखने के लिए, रोजाना नीम की एक छोटी गोली खाना बेहद ही फायदेमंद है। नीम की ये गोली पत्तों को पीस कर बनाई जाती है। जिसे सुबह खाली पेट खाना होता है। नीम के पेड़ की छाल का लेप भी शरीर में लगाया जाता है। नीम का लेप लगाने से शरीर के चर्म रोग को खत्म किया जाता है।

## **Superbugs**

**It's critical to invest in water infrastructure (Hindustan Times:20190405)**

<http://paper.hindustantimes.com/epaper/viewer.aspx>

Health centres minus water may spur superbugs, says UN. India must take note

A quarter of the world's health facilities lack basic water services, affecting two billion people, the United Nations said on Wednesday, warning that unhygienic conditions could fuel the global rise of deadly superbugs, a strain of bacteria that has become resistant to antibiotic drugs. In the poorest countries, about half the facilities do not have basic water services, meaning water delivered by pipes or boreholes that protect it from faeces. This puts birthing mothers and newborns in particular danger. It would not be wrong to say that a health care facility without water is not a real health care facility at all. This is because sick people shed a lot more pathogens in their faeces, and, without toilets, staff and patients — this includes mothers and babies — are at much greater risk of diseases caused and spread through human waste, say experts.

While the report does not mention India separately, the warning is very much for the country as it is for other parts of the developing world. India's problem is two-pronged. One, its public health system is in a shambles with infrastructure and hygiene challenges. According to WaterAid India, one in five newborn deaths in the country can be prevented by ensuring access to clean water and by providing a clean birthing environment. Second, more than 163 million people in India do not have access to clean water. That is the highest in the world. So the people are not just at risk when they are at the public health facilities but also outside them.

In the past five years, the Centre has focused hugely on building toilets, but failed to invest equally in providing water connections. This discrepancy must be fixed soon. Otherwise, the long-term impact of the other investment (sanitation) will not have the desired result.

## **UN warns of rise in deadly superbugs (Hindustan Times:20190405)**

<http://paper.hindustantimes.com/epaper/viewer.aspx>

LONDON: A quarter of the world's health facilities lack basic water services, impacting 2 billion people, the United Nations has said, warning that unhygienic conditions could fuel the global rise of deadly superbugs.

In the poorest countries, about half of facilities do not have basic water services - meaning water delivered by pipes or boreholes that protect it from faeces - putting birthing mothers and newborns in particular danger, new data showed.

The World Health Organization and UN Children's Fund said more than 1 million deaths a year were associated with unclean births, and 15% of all patients attending a health facility developed infections. "Hospitals are not necessarily points of care where you can heal, but points of almost infection. (We) are very alarmed by this," WHO public health co-ordinator Bruce Gordon told a media briefing in Geneva.

Worldwide, nearly 900 million people have no water at all at their local health facility or have to use unprotected wells or springs. One in five facilities also lack toilets, impacting about 1.5 billion people, the agencies said.

One of the development goals agreed by world leaders in 2015 was for all to have access to safe water and sanitation by 2030.

"A health care facility without water is not really a health care facility," said UNICEF statistician Tom Slaymaker. "Sick people shed a lot more pathogens in their faeces, and without toilets, staff, patients – this includes mothers and babies – are at a much greater risk of diseases caused and spread through human waste." The agencies said good water and sanitation services were crucial to reducing the spread of antimicrobial resistance, one of the greatest global health threats.

## Healthcare

### **Cong's Right to Healthcare promise: Understanding definitions, challenges (The Indian Express:20190405)**

<https://indianexpress.com/article/explained/congs-right-to-healthcare-promise-understanding-definitions-challenges-lok-sabha-elections-2019-healthcare-5659370/>

These Lok Sabha elections are probably the first in India's history in which health is part of the mainstream political discourse. Governments are required to create conditions in which everyone can be as healthy as possible.

Less than 1% of stroke patients in India get treatment within golden window'

A right to health, on the other hand, assumes the availability of sufficient indoor and outdoor services, to demand which a citizen could theoretically move court.

WITH the NDA's Ayushman Bharat and the Congress's promise of a Right to Healthcare Act "that will guarantee to every citizen the right to healthcare services, including free diagnostics, out-patient care, medicines and hospitalisation through a network of public hospitals and enlisted private hospitals", these Lok Sabha elections are probably the first in India's history in which health is part of the mainstream political discourse.

#### The Right to Health

The WHO defines the right to health as "a claim to a set of institutional arrangements and environmental conditions that are needed for the realisation of the highest attainable standard of health". It "does not mean the right to be healthy"; it is "an inclusive right, which extends in addition to timely and appropriate health care also to the underlying determinants of health, such as housing, food and nutrition, water, healthy occupational and environmental conditions and access to health-related information and education".

In other words, governments are required to create conditions in which everyone can be as healthy as possible. This was the reason the National Health Policy, 2017, discarded a right-based approach. "We realised it would take years to reach the manpower and infrastructure levels required for it. We simply did not have the resources. We needed huge investments in tertiary care," an official said.

The draft NHP in 2015 had proposed a National Health Rights Act to make health a justiciable fundamental right similar to education. By 2017, however, the government had moved to an "assurance-based approach". Health Minister J P Nadda told Parliament that the NHP "envisages providing larger package of assured comprehensive primary health care through the 'Health and Wellness Centres' and denotes important change from very selective

to comprehensive primary health care package which includes care for major NCDs, mental health, geriatric health care, palliative care, rehabilitative care services”.

The policy, he said, advocates allocating at least two-thirds of resources to primary care, aims to ensure two beds per 1,000 population, and proposes “free drugs, free diagnostics and free emergency and essential healthcare services in all public hospitals”.

### Constraints, Challenges

NITI Aayog figures show India’s doctor-to-population ratio at 1:1,655, against the WHO norm of 1:1,000. In the government sector, there is one allopathic doctor per 11,000 people on average, according to the National Health Profile, 2018. In Bihar, this number is 28,391; in Delhi, it is 2,203. The WHO puts the optimum ratio of hospital beds to population at 3.5 per 1,000; in India, it is 0.5 per 1,000 on average, World Bank data show. Rural areas are grossly underserved and entirely dependent on government hospitals.

A 2015 working paper by the Delhi-based Institute for Studies in Industrial Development noted that the share of private hospitals in India went from 18.5% in 1974 to 74.9% in 2000, and the private sector’s share of hospital beds increased from 21.4% in 1974 to 50.7% in 2013. “The share of private medical institutions at the time of Independence was only 3.6%, whereas it... reached 54.3% in 2014”.

### Universal Health Cover

Ayushman Bharat is in effect a blueprint for Universal Health Coverage (UHC) — for which the erstwhile Planning Commission had set up an expert group when UPA-2 was in power. According to the WHO, UHC “means that all people... can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while... ensuring that the use of these services does not expose the user to financial hardship”.

To achieve UHC, the government tries to reach every person with a health strategy and resources, including preventive services, through the health and wellness centres mandated under Ayushman Bharat. Of the targeted 1,53,000 centres, 17,000 have been set up. The other arm of the programme is the Pradhan Mantri Jan Arogya Yojana under which 10.74 crore families are being provided an annual health cover of Rs 5 lakh for secondary and tertiary care.

A right to health, on the other hand, assumes the availability of sufficient indoor and outdoor services, to demand which a citizen could theoretically move court. The government hopes that with the involvement of the private sector in Ayushman Bharat, there will be enough investment in healthcare, especially in Tier II and III cities, for infrastructure to eventually reach levels at which a Right to Health law could be considered.

## **Pre-empting risk factors key to healthcare (The Tribune:20190405)**

<https://www.tribuneindia.com/news/comment/pre-empting-risk-factors-key-to-healthcare/753413.html>

Health promotion aims to help people change their lifestyle to move towards a state of optimal health wherein importance must be given to primordial prevention of diseases rather than the traditional curative care involving the doctor and the patient.

Consultant, World Health Organisation

THE Government of India's thrust on strengthening primary healthcare at the grassroots level has not achieved significant success, as evidenced by the wide inequity in healthcare distribution and lack of access to proper healthcare facilities for the poor and marginalised people. In order to achieve the Sustainable Development Goal (SDG) of 'Universal Health Coverage', we need to lay emphasis on health promotion measures focusing on an 'individual-centric approach' encompassing surveillance of 'at risk' populations and the provision of preventive health services to the people.

There is global acceptance that health and social wellbeing are determined by an array of social, economic, cultural and political factors. It is imperative to study the attitudes of people towards the concept of health promotion.

Health promotion aims to help people change their lifestyle to move towards a state of optimal health wherein importance must be given to primordial prevention of diseases rather than the traditional curative care involving the doctor and the patient.

The primordial model of prevention refers to all measures designed to prevent the development of risk factors of diseases early on in life. It can be as early as the conception (prenatal) period till adolescence and young adulthood. It also emphasises the role of social and environmental conditions in which these risk factors develop and affect humans. It follows the concept of epigenetics, a branch of medicine dealing with the study of all features that are not directly involved in the alterations in the DNA sequence but contribute significantly to the determination of cellular and physiological phenotype traits in human bodies.

Currently, India is grappling with the burden of Non-Communicable Diseases (NCDs). Primordial prevention aims to control the burden of NCDs and chronic diseases as ailments like diabetes and hypertension have their roots in childhood. About 80 per cent of the heart diseases and strokes, 80 per cent of diabetes cases and 40 per cent of cancer cases can be prevented by eliminating common risk factors, namely poor diet, physical inactivity and smoking. Consumption of high-calorie/junk food supplemented by a sedentary lifestyle in

childhood leads to the development of obesity and multiple chronic ailments, apart from various degenerative diseases in the adulthood.

Even though the National Rural Health Mission (NRHM) called for a synergistic approach by relating health to determinants of good health and conglomerated the AYUSH (Ayurveda, Unani, Siddha and Homoeopathic systems of medicine) system into healthcare, the results are far from satisfactory. Imparting information, education and communication (IEC) regarding primordial prevention of diseases to people remains a distant dream. The basic difference between primary prevention and primordial prevention needs to be made clear. Primary prevention is about treating the risk factors of a disease condition, whereas primordial prevention refers to avoiding the development of risk factors in the first place.

The practice of prenatal yoga by expecting women makes out the best case for primordial prevention as it reduces the stress hormone cortisol in mothers, besides boosting their immunity as Immunoglobulin A is enhanced. Similarly, postnatal exercise has enormous health benefits for mothers and infants as it leads to the prevention of gestational diabetes in mothers, improved mental health, development of endurance and positive self-esteem, besides foetal benefits which include reduced risk of pre-term delivery. Consumption of folic acid during pregnancy prevents the development of neural tube defects like spina bifida and anencephaly in children. Young girls who are obese or follow a sedentary lifestyle are heading towards acquiring Gestational Diabetes Mellitus (GDM) during pregnancy, which is associated with adverse maternal and foetal outcomes along with lifelong medical complications.

Breastfeeding forms the cornerstone of primordial level of prevention of diseases in infants as it protects the baby from major infections such as diarrhoea and respiratory infections; the prevalence of childhood leukaemia is also reduced significantly. Numerous research studies have proved that consumption of breast milk, which contains omega 3 fatty acids, leads to higher IQ and brain development in children. It is ironical that one in every three malnourished children of the world is an Indian. The World Health Organisation (WHO) has concluded that 53 per cent of pneumonia and 55 per cent of diarrhoea deaths are attributable to poor feeding practices during the first six months; early initiation of breastfeeding would be protective against these causes of death.

Primordial prevention of cardiovascular diseases includes monitoring of body-mass index, control of triglycerides and cholesterol in the blood, avoidance of junk food, limiting salt intake and inclusion of physical activity during childhood. Adulthood measures include controlling blood glucose levels, stress reduction, shunning sedentary lifestyle, intake of antioxidants, avoidance of smoking and alcoholism.

Strengthening primordial health services and focusing on the primary level of prevention is not a cakewalk as there is an utmost need to strengthen our crippling health system with simple, cost-effective, innovative, culturally and geographically appropriate models, combining issue-based and settings-based designs and ensuring community participation. There is a need to establish a transparent and credible regulatory system to check the efficacy

of services provided by the health workers. A thorough evaluation of their health services should be made, especially in terms of changes in healthcare practices of people and the extent to which they actually utilise existing health resources.

A major push is required to modify the existing complex socio-economic determinants of health, establish health education departments in every CHC (community health centre), initiate quality research on levels of disease prevention and introduce prevention-based check-ups in outpatient departments of every government health facility.

## **Alcohol Dependence**

### **Harms of alcohol on brain persist even after quitting: Study (The Asian Age:20190405)**

<https://www.tribuneindia.com/news/health/story/753247.html>

Alcohol-induced damage in the brain continues for few weeks after the consumption of alcohol has stopped, according to a study.

Alcohol-induced damage in the brain continues for few weeks after the consumption of alcohol has stopped, according to a study.

Although the harmful effects of alcohol on the brain are widely known, the structural changes observed are very heterogeneous, said researchers from the Central Institute of Mental Health of Mannheim, in Germany.

Diagnostic markers are lacking to characterise brain damage induced by alcohol, especially at the beginning of abstinence, a critical period due to the high rate of relapse that it presents.

Now, researchers have detected, by means of magnetic resonance, how the damage in the brain continues during the first weeks of abstinence, although the consumption of alcohol ceases.

The research, published in the journal JAMA Psychiatry, found that six weeks after stopping drinking there are still changes in the white matter of the brain.

"Until now, nobody could believe that in the absence of alcohol the damage in the brain would progress," said Santiago Canals, of the Institute of Neurosciences in Spain.

Ninety patients with an average age of 46 years hospitalised because of an alcohol use disorder participated in this study.

To compare the brain magnetic resonances of these patients, a control group without alcohol problems was used, consisting of 36 men with an average age of 41 years.

"An important aspect of the work is that the group of patients participating in our research are hospitalised in a detoxification programme, and their consumption of addictive substances is controlled, which guarantees that they are not drinking any alcohol.

"Therefore, the abstinence phase can be followed closely," said Canals.

Another differential characteristic of this study is that it has been carried out in parallel in a rat model with preference for alcohol, which allows to monitor the transition from normal to alcohol dependence in the brain, a process that is not possible to see in humans, said first author Silvia de Santis.

The damages observed during the period of abstinence affect mainly the right hemisphere and the frontal area of the brain and reject the conventional idea that the microstructural alterations begin to revert to normal values immediately after abandoning the consumption of alcohol. — PTI

## Diet/ Nutrition (The Asian Age:20190405)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=12755584>

# Hundreds of deaths in India caused by poor diet

**Washington, April 4:** Poor diet leads to hundreds of deaths in India annually, according to a Lancet study which found that globally one in five people die due to the lack of optimal amounts of food and nutrients on their plates. The report, which tracked trends in consumption of 15 dietary factors from 1990 to 2017 in 195 countries, showed that almost every region of the world could benefit from rebalancing their diets. The study estimates that one in five deaths globally

— equivalent to 11 million deaths — are associated with poor diet, and diet contributes to a range of chronic diseases in people around the world. In 2017, more deaths were caused by diets with too low amounts of foods such as whole grains, fruit, nuts and seeds than by diets with high levels of foods like trans fats, sugary drinks, and high levels of red and processed meats. Low intake of whole grains — below 125 grammes per day — was

### DIETARY RISKS

■ 15 dietary factors trending in consumption from 1990 to 2017 in 195 countries, were tracked

■ 11m deaths globally due to poor diet

■ Diets with little whole grains, fruit, nuts and seeds fatal

■ 125 gm daily or less of whole grains leading dietary risk



the leading dietary risk factor for death and disease in India, the US, Brazil, Pakistan, Nigeria, Russia, Egypt, Germany, Iran, and Turkey. In Bangladesh, low intake of fruits — below

250 grammes per day — was the leading dietary risk. In 2017, the countries with the lowest rates of diet-related deaths were Israel, France, Spain, Japan, and Andorra. India ranked 118th with 310 deaths per 100,000 people. The UK ranked 23rd (127 deaths per 100,000), and the US ranked 43rd (171 deaths per 100,000) after Rwanda and Nigeria (41st and 42nd). China ranked 140th, with 350 deaths per 100,000 people, researchers said in a statement. The findings highlight the

urgent need for coordinated global efforts to improve diet, through collaboration with various sections of the food system and policies that drive balanced diets. "This study affirms what many have thought for several years — that poor diet is responsible for more deaths than any other risk factor in the world," said Christopher Murray, at University of Washington in the US. "While sodium, sugar, and fat have been the focus of policy debates over the past two decades, our

assessment suggests the leading dietary risk factors are high intake of sodium, or low intake of healthy foods, such as whole grains, fruit, nuts and seeds, and vegetables," said Murray. The study evaluated the consumption of major foods and nutrients across 195 countries and quantified the impact of poor diets on death and disease from non-communicable diseases (specifically cancers, cardiovascular diseases, and diabetes). —PTI

## Cancer

### **Cancer: Are probiotics making immunotherapy less effective? (Medical News Today:20190405)**

<https://www.medicalnewstoday.com/articles/324886.php>

Immunotherapy is a cancer treatment with several benefits. For this reason, improving its effectiveness is vital. In studying the gut microbiome, scientists have found some rather unusual results.

Probiotic supplements may hinder cancer treatment.

Cancer immunotherapy is a relatively young field.

However, it has the potential for long-term remission and less likely side effects.

According to the Cancer Research Institute, scientists have shown that it is effective at treating cancers that are resistant to both chemotherapy and radiation therapy.

Immunotherapy works by helping the immune system fight off the disease. Cancer cells normally go undetected by the immune system, but the treatment uses drugs and other substances to produce a stronger response.

Checkpoint inhibitors are one type of immunotherapy. They affect cancer cells' ability to dodge immune system attacks. However, they only work for 20–30 percent of people with cancer.

Scientists have recently found that the gut microbiome, which comprises trillions of intestinal microorganisms, has the ability to control the immune system.

A group of researchers from the Parker Institute for Cancer Immunotherapy in San Francisco, CA, and the University of Texas MD Anderson Cancer Center in Houston has examined whether this could be impacting immunotherapy success rates.

A surprising result

The preliminary study is the first to look at the link between immunotherapy, the gut microbiome, and diet in people with cancer. In all, 113 individuals with metastatic melanoma who had started treatment at MD Anderson took part.

The scientists presented their findings at the American Association for Cancer Research's recent annual meetings, which took place in Atlanta, GA.

Could probiotics evolve in the gut and cause harm?

Like most living things, probiotics evolve. But how does their evolution affect their therapeutic effects?

The participants filled out a lifestyle survey on their diet, medication, and use of supplements. The researchers also analyzed their fecal samples to build up a picture of each individual gut microbiome. They also tracked the participants' treatment progress.

One surprising finding came to light. Taking over-the-counter probiotic supplements correlated with a 70 percent lower chance of responding to checkpoint inhibitor immunotherapy. Almost half (42 percent) of the participants reported taking such supplements.

The researchers also noticed a relationship between probiotics and lower gut microbiome diversity. Scientists had already seen this in people with cancers that respond poorly to immunotherapy.

"The general perception is [that probiotics] make your gut microbiome healthier," says first study author Christine Spencer, a research scientist at the Parker Institute. "While more research is needed, our data suggest that may not be the case for cancer patients."

#### Manipulating the gut microbiome

Dietary choices also appeared to have an impact. People who ate a high-fiber diet were five times as likely to respond to immunotherapy and had more bacteria linked to a positive response.

People with diets high in added sugar and processed meat, on the other hand, had fewer of these bacteria.

Spencer and team were less shocked by this result. "Eating a high-fiber diet has long been shown to have health benefits," she explains. "In this case, we see signs that it is also linked to a better response to cancer immunotherapy. Definitely another good reason to load up on whole grains, vegetables, and fruits."

Overall, the study may partly explain why some cancers do not respond well to immunotherapy treatment. It also suggests that certain dietary factors — especially careful consideration of probiotic supplements — may have an impact on success rates.

Spencer admits that improving the effectiveness of immunotherapy might not be as simple as that. "But this study," she says, "does point to diet playing a role in immunotherapy response via the gut microbiome and we hope these findings will spur more studies on this topic in the cancer research community."

More trials are beginning. One is currently using an oral pill in an attempt to positively influence the gut microbiome and immunotherapy response.

MD Anderson staff are planning another that will examine the effects of different diets on people with cancer.

## Obesity

### How use of digital devices may influence obesity risk (Medical News Today:20190405)

<https://www.medicalnewstoday.com/articles/324883.php>

Recent evidence suggests that people who multitask by switching frequently between digital devices may be more at risk of developing unhealthy eating habits and obesity.

Media multitasking may impact obesity risk and eating habits.

The more gadgets that become available to us, the more we may feel tempted to explore these new technologies, but their constant claims on our attention could end up harming our health.

At home and in the workplace, various technologies compete for our attention: Computers, smartphones, tablets, and smartwatches all urge us to prioritize different tasks and rewards with their push notifications and the appeal of social media.

And even when we sit down at the dinner table with our partners or catch up over coffee with a friend, some of us may feel tempted to whip out our phones and check for new likes and messages on our various media accounts, switching from one app to the next.

According to a new study — from Rice University, in Houston, TX, Dartmouth College, in Hanover, NH, and The Ohio State University, in Columbus — people who often switch between forms of digital media are more likely to be overweight or have obesity and to have poorer self-control.

"Increased exposure to phones, tablets, and other portable devices has been one of the most significant changes to our environments in the past few decades, and this occurred during a period in which obesity rates also climbed in many places," says lead researcher Richard Lopez, Ph.D.

"So, we wanted to conduct this research to determine whether links exist between obesity and abuse of digital devices — as captured by people's tendency to engage in media multitasking," he explains.

The researchers report their findings in a study paper that appears in the journal *Brain Imaging and Behavior*.

Multitasking and the brain's reaction to food

Lopez and the team conducted two related studies that assessed the link between media multitasking and obesity. In the first, the researchers worked with 132 participants aged between 18 and 23.

The participants answered questions from a specially designed questionnaire aimed at evaluating how much they multitasked and how easily they got distracted — for instance, whether they felt the urge to check messages on their phones while having in-person conversations.

At this stage, the team found that individuals who scored high on the media multitasking questionnaire had higher body mass indexes and more body fat than participants who had low scores.

Struggling to focus? This new brain training app may help

A newly developed brain training app could help undo the harms of multitasking.

In the second study, the researchers selected 72 participants from the previous study, who agreed to undergo functional MRI scans so that the team could record their brain activity as they looked at a series of images that included slides of unhealthy but appealing foods.

The scans revealed that, when shown pictures of unhealthy foods, people with high media multitasking scores showed increased activity in the ventral striatum and orbitofrontal cortex, two brain regions implicated in the reward cycle, which plays a role in addiction and the formation of unhealthy habits.

Additional research also showed that these participants were more likely to spend more time around campus eateries.

So far, the findings suggest only a correlation between multitasking habits, levels of distractibility, and the risk of obesity.

However, Lopez and the team believe that the connection emphasizes an important concern, namely that how we relate to digital media could affect our brain processes, which, in turn, may impact our habits and our health.

"Such links are important to establish, given rising obesity rates and the prevalence of multimedia use in much of the modern world."

Richard Lopez, Ph.D.

The researchers also hope that future studies will shed further light on these matters and reveal more about how some forms of multitasking may affect our physical well-being.

## **Dementia**

### **Dementia: Amyloid PET scans can improve diagnosis and care (Medical News Today:20190405)**

<https://www.medicalnewstoday.com/articles/324877.php>

PET scans that can detect changes in the brain relating to Alzheimer's disease could improve the diagnosis and medical care of people with dementia and similar symptoms.

An innovative type of brain scan may improve care for people with Alzheimer's disease, dementia, and other forms of cognitive impairment.

Investigators came to this conclusion after analyzing the early results of a study that is examining the clinical impact of a new type of scan called amyloid PET imaging.

The study is a nationwide trial involving more than 11,000 people with mild cognitive impairment (MCI) or dementia symptoms who enrolled at 595 sites across the United States.

It is the first investigation of its kind, and all the participants are beneficiaries of Medicare, the U.S. federal health insurance plan.

The results of the first phase of the trial, which now feature in a JAMA paper, reveal that providing doctors with amyloid PET scan results can affect the medical management of people with dementia symptoms.

In almost two-thirds of cases, doctors changed their minds about medications, counseling, and other medical decisions after seeing the amyloid PET imaging results.

Also, in more than a third of cases, doctors altered their diagnosis of the cause of the symptoms.

"We are impressed," says lead study author Gil D. Rabinovici, who is a professor of neurology at the University of California, San Francisco, "by the magnitude of these results, which make it clear that amyloid PET imaging can have a major impact on how we diagnose and care for patients with Alzheimer's disease and other forms of cognitive decline."

Dementia, Alzheimer's, and cognitive impairment

Dementia refers to a group of symptoms that includes a decline in the ability to remember, think, reason, and relate to others. The symptoms can worsen over time until the person can no longer take care of themselves and live independently.

According to a 2018 report from Alzheimer's Disease International, there are close to 50 million people worldwide with dementia, and this figure is set to triple by 2050.

## Alzheimer's blood test detects brain damage years before symptoms

Testing the blood for a protein that leaks out of dying brain cells could make it possible to detect Alzheimer's disease long before symptoms emerge.

Two-thirds of people with dementia have Alzheimer's disease. The rest have vascular, mixed, Lewy body, or frontotemporal dementia. All of these conditions affect the brain and involve the loss of brain cells.

In the U.S., where Alzheimer's is the sixth leading cause of death, the Alzheimer's Association estimate that there are about 5.8 million people with the disease and that this figure is set to rise to almost 14 million by 2050.

MCI is a condition in which a person can experience symptoms that are similar to those of early dementia. For instance, they may have some memory loss, find it difficult to carry out familiar tasks, be unable to recognize places and people, and struggle to make decisions.

Although MCI often precedes dementia, not everyone with MCI will develop dementia. The underlying cause might not be a progressive disease that kills brain cells. It could, for example, be a result of drug side effects, depression, or a lack of vitamin B-12.

## Brain plaques and amyloid PET imaging

One of the distinguishing features of Alzheimer's disease is the buildup of toxic plaques of amyloid protein in the brain. Until recently, the only way to detect this hallmark was through postmortem tests on brain tissue.

Now, thanks to amyloid PET imaging, doctors can detect Alzheimer's brain plaques in living people.

With this type of medical imaging, the individual receives an injection of a chemical tracer before they undergo the scan. The tracer travels to the brain and sticks to any amyloid plaques that might be present. These then show up on the scan.

Although there is no cure for Alzheimer's disease, the ability to diagnose it more accurately in the early stages can help doctors prescribe the correct treatment and give patients and their families time to prepare for the future. It can also improve the selection of suitable candidates for Alzheimer's drug trials.

If the amyloid PET scan can rule out Alzheimer's disease as the cause of a person's dementia symptoms, doctors can then evaluate other causes, some of which might even be reversible, such as medication, sleep disturbance, or mood disorders.

The Food and Drug Administration (FDA) have approved the use of the chemical tracers that amyloid PET scans require for diagnosing dementia. However, health insurance schemes do not currently cover their cost, putting them out of reach for most people.

Study co-author Dr. Maria C. Carrillo is chief science officer of the Alzheimer's Association, one of the study's sponsors. She states that the study offers "highly credible, large-scale evidence that amyloid PET imaging can be a powerful tool to improve the accuracy of Alzheimer's diagnosis and lead to better medical management, especially in difficult-to-diagnose cases."

"It is important," she adds, "that amyloid PET imaging be more broadly accessible to those who need it."

#### First phase of IDEAS trial

The study is the first phase of the Imaging Dementia — Evidence for Amyloid Scanning (IDEAS) trial.

The researchers examined data on 11,409 people to analyze how amyloid PET imaging changed doctors' diagnoses and their choice of medical treatment. The primary measure was changes to decisions about prescription drugs and about counseling patients and their families on safety and planning.

The secondary measure that the team evaluated was whether amyloid PET scans caused doctors to change their diagnoses. The team also explored how the scans affected referrals to Alzheimer's drug trials.

The results showed that in the case of more than 60 percent of participants, amyloid PET scans caused doctors to change their minds about medical management. This was more than twice the number that the investigators had been expecting.

Also, doctors were twice as likely to prescribe Alzheimer's drugs to participants with MCI if their PET scans showed significant evidence of amyloid plaques.

There were also cases in which doctors who had previously prescribed Alzheimer's drugs discontinued them when the participant's PET scan showed scant evidence of amyloid deposits.

#### Significant shifts in diagnoses

In addition, PET scan results caused significant shifts between the diagnoses confirming Alzheimer's disease and those ruling it out.

In a third of the cases in which PET scans showed little evidence of amyloid plaques, doctors who had previously suspected Alzheimer's disease ruled it out.

Conversely, in nearly half of the cases in which PET scans showed significant evidence of amyloid plaques, doctors who had previously ruled out Alzheimer's disease factored it in.

When they examined PET scans of people whom doctors had previously referred to clinical trials of Alzheimer's drugs, the researchers found that around one-third of them had no trace of amyloid buildup.

In contrast, for cases in which doctors had seen amyloid PET scan results before making the clinical trial referral, nearly all (93 percent) of those whom they had referred had signs of amyloid buildup. The accurate diagnosis of the people participating in a drug trial specific to that condition increases the reliability of the trial results.

Prof. Rabinovici also states that "Alzheimer's medications can worsen cognitive decline in people with other brain diseases."

Work for the second phase of the IDEAS trial is already underway. Due to publish results in 2020, it will examine the effect of amyloid PET imaging on health outcomes. To do this, it will include a comparison with people with similar symptoms who do not undergo amyloid PET scans.

"This was a uniquely real-world study that looked at the impact of amyloid PET imaging in community clinics and other nonacademic settings and demonstrates for the first time how much impact this technology has in real-world dementia care."

Prof. Gil D. Rabinovici

## **Mental Health**

### **Mental health can impact memory decades later (Medical News Today:20190405)**

<https://www.medicalnewstoday.com/articles/324867.php>

New research from the United Kingdom has found that people who experience recurrent episodes of depression throughout adulthood are more at risk of developing memory problems later in life.

Accumulated depression and anxiety can predict a person's likelihood of developing memory problems.

Scientists have already shown that depression and other mental health problems can affect a person's memory in the short term.

For instance, a study that the journal *Cognition and Emotion* published in 2016 found that individuals with dysphoria — a persistent sense of unhappiness or dissatisfaction that is often a symptom of depression — had poorer working memory than people without any mental health problems.

Now, however, researchers from the University of Sussex in Brighton, U.K. have found evidence that links experiencing mental health problems throughout adulthood to memory problems at the age of 50 years.

The implications, says study author Darya Gaysina, are that "the more episodes of depression people experience in their adulthood, the higher risk of cognitive impairment they have later in life."

"This finding highlights the importance of effective management of depression to prevent the development of recurrent mental health problems with long-term negative outcomes."

Darya Gaysina

In the new longitudinal study, the findings of which appear in the *British Journal of Psychiatry*, researchers analyzed the data of 9,385 people born in the U.K. in 1958, which the National Child Development Study (NCDS) has been collecting.

This new study is the first to look at the long-term relationship between mental and cognitive health.

Mental health problems and memory

To date, the NCDS has followed this cohort for more than 60 years, collecting information about each participant's health at the ages of 7, 11, 16, 23, 33, 42, 44, 46, 50, and 55 years.

In addition, these participants reported their affective symptoms at the ages of 23, 33, 42, and 50 years and agreed to take memory and other cognitive function tests when they reached 50 years of age.

Gaysina and colleagues looked at how often the participants experienced mental health symptoms throughout the study period and assessed their performance in terms of memory function at age 50.

Can these new compounds treat memory loss in depression?

Researchers are trying to find new ways of treating depression-related memory loss.

The researchers used a word-recall test to assess the participants' memory, and they also evaluated each person's verbal memory, verbal fluency, information-processing speed, and information-processing accuracy.

The investigators report their findings in the study paper, writing that the "accumulation of affective symptoms across three decades of adulthood (from age 23 to age 50) was associated with poorer cognitive function in midlife," and, specifically, with poorer memory.

Although experiencing a single episode of depression or another mood disorder did not seem to affect a person's memory in midlife, the researchers explain that going through depression and anxiety repeatedly throughout adulthood was a good predictor of poorer cognitive function at age 50.

"We knew from previous research that depressive symptoms experienced in mid-adulthood to late-adulthood can predict a decline in brain function in later life, but we were surprised to see just how clearly persistent depressive symptoms across three decades of adulthood are an important predictor of poorer memory function in midlife," says the study's first author Amber John.

Calling for an 'investment in mental health'

In the study paper, the researchers emphasize that the main strength of the current research lies in its numbers, noting that it involved "a large nationally representative sample with a long follow-up period."

At the same time, they caution that the data did have its limitations, the main one being that the participants undertook cognitive function assessments only once, at age 50. As a result, the investigators were unable to trace potential changes in cognitive function over time.

Moreover, they explain that at the point when the participants undertook the tests assessing their memory and other cognitive functions, these exams were limited and checked for fewer factors than more recent assessments.

However, the University of Sussex research team also believes that the current findings should be a wake-up call, particularly for governmental policy-makers and healthcare providers but also for individuals who may have a tendency to put mental health self-care on the back burner.

"With the publication of this research, we're calling for the government to invest in mental health provision to help stem the risk of repeated episodes of depression and anxiety," says John.

"From an individual's perspective," she adds, "this research should be a wake-up call to do what you can to protect your mental health, such as maintaining strong relationships with friends and family, taking up physical exercise, or practicing mindfulness meditation — all of which have been shown to boost mental health."

Finally, she advises "seeing your [doctor] for advice if you feel you need help with depression or anxiety" rather than allowing the problem to develop.