<table>
<thead>
<tr>
<th>S. No.</th>
<th>News / New Research</th>
<th>Internet Address</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>82</td>
<td>Depression, a Forced Silence Within</td>
<td><a href="http://www.thehindu.com/health/rx/depression-a-forced-silence-within/article3982210.ece">http://www.thehindu.com/health/rx/depression-a-forced-silence-within/article3982210.ece</a></td>
<td>11-10-12</td>
</tr>
<tr>
<td>83</td>
<td>Missing Just Two Hours of Sleep can erase Memories</td>
<td><a href="http://www.indianexpress.com/news/missing-just-two-hours-of-sleep-can-erase-memories-study/1018029/">http://www.indianexpress.com/news/missing-just-two-hours-of-sleep-can-erase-memories-study/1018029/</a></td>
<td>17-10-12</td>
</tr>
<tr>
<td>84</td>
<td>Alzheimer’s Disease</td>
<td><a href="http://www.helpguide.org/elder/alzheimers_disease_symptoms_stages.htm">http://www.helpguide.org/elder/alzheimers_disease_symptoms_stages.htm</a></td>
<td>01-11-12</td>
</tr>
<tr>
<td>85</td>
<td>Vigorous Exercise can heal Heart</td>
<td><a href="http://health.india.com/news/vigorous-exercise-can-heal-heart-says-study/">http://health.india.com/news/vigorous-exercise-can-heal-heart-says-study/</a></td>
<td>05-11-12</td>
</tr>
<tr>
<td>86</td>
<td>Donated Stem Cells may work Best for Heart Patients</td>
<td><a href="http://www.reuters.com/article/2012/11/06/us-heart-stemcells-idUSBRE8A501Y20121106">http://www.reuters.com/article/2012/11/06/us-heart-stemcells-idUSBRE8A501Y20121106</a></td>
<td>05-11-12</td>
</tr>
<tr>
<td>93</td>
<td>Smoking killed 100 Million in 100 Years</td>
<td><a href="http://www.indianexpress.com/news/smoking-killed-100-million-in-100-years/1036155/">http://www.indianexpress.com/news/smoking-killed-100-million-in-100-years/1036155/</a></td>
<td>26-11-12</td>
</tr>
<tr>
<td>95</td>
<td>Eating More Fish may cut Young Women’s Heart Disease Risk</td>
<td><a href="http://news.xinhuanet.com/english2010/health/2011-12/06/c_122380118.htm">http://news.xinhuanet.com/english2010/health/2011-12/06/c_122380118.htm</a></td>
<td>26-11-12</td>
</tr>
<tr>
<td>96</td>
<td>Taking Vitamin D may reduce the Risk of Alzheimer’s Disease</td>
<td><a href="http://www.dailymail.co.uk/news/article-2242107/Taking-Vitamin-D-reduce-risk-Alzheimers-disease.html?ito=feeds-newsxml">http://www.dailymail.co.uk/news/article-2242107/Taking-Vitamin-D-reduce-risk-Alzheimers-disease.html?ito=feeds-newsxml</a></td>
<td>03-12-12</td>
</tr>
</tbody>
</table>
81. Violent Video Games make Teens More Aggressive towards Other People

London, Tue Oct 09 2012

Teenagers who play violent video games over a number of years tend to become more aggressive towards other people, according to a new long-term study.

Researchers said the study was the first to show a clear link between a sustained period of playing violent games and subsequent increases in hostile behaviour.

Girls who play violent computer games during their school years were found to be affected just as much as boys.

The research suggests that long-term players of violent games may become more likely to react aggressively to unintentional provocations such as someone accidentally bumping into them, they added.

The study involved 1,492 adolescents at eight high schools in Ontario, 51 per cent of who were female and 49 per cent male.

Surveys were carried out annually across four school years with the participants aged 14 or 15 at the start of the study and 17 or 18 at its conclusion.

The teenagers were asked a series of questions such as how often they pushed or shoved people and whether they frequently kick or punch people who make them angry.

Psychologists used this to give each individual a score for their aggression level at each point in time.

They were also asked whether they played action or fighting video games.

In the final two years of the study they were also asked how frequently they played such games, ranging from never to for five or more hours per day.

Analysis showed that teenagers who played violent video games over a number of years saw steeper rises in their aggression scores during the study.

Others who regularly played non-violent games did not show any evidence of increased aggression.

The trend remained even after taking into account other variables that could be linked to aggression such as gender, parental divorce and marijuana use.
The research team at Brock University in Canada said their results were "concerning" and wrote that violent games could "reinforce the notion that aggression is an effective and appropriate way to deal with conflict and anger".

“The current study is the first to demonstrate a relation between sustained violent video game play and the progression of aggressive behaviour,” the Daily Mail quoted lead researcher Professor Teena Willoughby, as saying.

The study has been published in the journal Developmental Psychology.


82. Depression, a Forced Silence Within
Vikram Patel; Oct 10-2012

The World Federation for Mental Health proposes that depression is a global crisis because it affects more than 300 million people around the world, that it is associated with profound social and economic consequences, and that despite the fact that it is “treatable” most people around the world do not receive these treatments. But there are many who question this evidence, with the most strident critique challenging the very notion of depression as a disorder in the first place and equating its application across cultures with psychiatric imperialism: one commentator has famously referred to the globalisation of the concept of depression as the “Americanisation of mental illness”. (http://www.nytimes.com/2010/01/10/magazine/10psyche-t.html?pagewanted=all).

These dissenting voices argue that what constitutes depression is, in fact, a perfectly normal human response to adversity in one’s life (for example, losing someone you love or your job), and that applying a medical label wrongly transforms this response into a sickness. Worse, applying such labels primarily furthers the pernicious agendas of the professional mental health sectors and its bed-fellows in the pharmaceutical industry. As Horwitz and Wakefield, two American mental health professionals argue, there is a real danger of the “loss of sadness” (http://www.amazon.com/Loss-Sadness-Psychiatry-Transformed-Depressive/dp/0195313046), an emotional experience which is as common as happiness, through the over-use and abuse of the diagnostic label of depression and antidepressant medicines.

What do we make of these contrasting views? Is depression a real disorder? Does it really occur in non-western settings? How do we distinguish despair from disorder?

There seems little doubt in my mind that depression, in particular at the severe end of the experience of this condition, is as real a disorder as diabetes is at the severe end of blood glucose levels. I could invoke the hundreds of studies carried out in scores of countries around the world which demonstrate not only that the core features of this condition can be identified in all cultures, but also that the condition is very common and disabling. I could invoke the fact that my own mother who grew up and lived her life in India, suffered from severe depression from which she made a full recovery with treatment. But I think the most compelling evidence to support the existence of this condition comes from the annals of the history of medical knowledge: indigenous systems of medicine from times immemorial, including our own in India, have described a syndrome akin to what we refer to as depression (albeit with different names and different explanations). Depression has existed as long as mankind itself, and certainly well before psychiatry, antidepressant medication or the nation of America itself came into being.
However, it is equally true that, we have a real problem is distinguishing depression as an illness from the despair of everyday life. Defining a disorder, at least from a clinical point of view, necessitates that we do identify such a dividing line. While the problem of defining the dividing line is also encountered in many other medical conditions such as hypertension (what is the exact dividing line between “normal” and “abnormal” blood pressure?), at least in those cases we can fall back on some objective indicator or measure (such as a blood pressure reading) to determine whether a person has the condition. In the absence of such an objective indicator of the disorder, psychiatry has defined a “case” on the basis of various characteristics of the self-reported experiences of depression (for example, their duration) and the impact of these experiences on social or occupational functioning. There is an obvious element of subjectivity and arbitrariness in making such distinctions and thus the inherent risk of mistaking despair for disorder, particularly at the milder end of the spectrum.

In the end, I do not think we will find the neat boundary between “normal sadness” and “clinical depression” if only because mood is an innate human characteristic, like weight or the length of our hair. However, to reject the very notion of depression as an illness on account of these difficulties is throwing the baby out with the bathwater. In my mind, depression is, like all non-communicable diseases, a physiologically expressed condition which is profoundly influenced by our social and cultural environments. Depression is a global crisis not only because it is common and universal, but because the vast majority of affected people suffer in silence or receive inappropriate care. We need to move firmly beyond the misinformed views that depression is a “psychiatric invention” to investing more on understanding its nature, finding more accurate ways of distinguishing when a person with the condition may benefit from medical care, and improving access to the full range of treatments (medicines and psychosocial) for such persons.

(Vikram Patel is director of the Centre for Global Mental Health at the London School of Hygiene & Tropical Medicine, director of the Center for Mental Health at the Public Health Foundation of India, and founder of the Goa-based NGO, Sangath.)

http://www.thehindu.com/health/rx/depression-a-forced-silence-within/article3982210.ece

83. Missing Just Two Hours of Sleep can erase Memories

Researchers have discovered that memories can be lost for ever if you don't get enough sleep, and missing even two hours of slumber can stop the brain from storing them.

Researchers from the University of Pennsylvania looked at how mice that were stopped from sleeping fared on a memory task.

The creatures were kept awake for varying amounts of time, to pinpoint just how little sleep had to be lost for their recall to be damaged, the Daily Mail reported.

"What we found is that when we deprived animals of sleep, that impaired storage of memories," researcher Ted Abel said.

"And most importantly we found out that a very short period of time would block memory consolidation, it was as short as three hours, which for mice is something like 20 per cent of their sleep over 24 hours," Abel said.
"In human terms, it would be the equivalent of dropping an eight-hour night of sleep to six hours, which is something we do all the time," Abel added.

It is thought that the replay of our memories while we are asleep is essential for their proper storage in the brain.

The study also suggested that there is a critical period after learning during which memories are consolidated; meaning that loss of sleep at some points in time may be more damaging than at others.

Researchers added that any information lost due to lack of sleep is gone forever - meaning that sleeping longer the next night won't bring it back.


84. Alzheimer’s Disease

Symptoms, Stages and Coping with Alzheimer’s Disease

Alzheimer’s disease causes more worry for people over 55 than any other condition. Suspecting you or a loved one are exhibiting signs of Alzheimer’s can be a stressful and emotional experience. Even if you find yourself forgetting things, it doesn’t necessarily mean you have this disease. Even when you fear the worst, the earlier you seek help, the better your chances of getting the care you need and maximizing your quality of life.

What is Alzheimer’s disease?

Alzheimer’s disease is the most common form of dementia, a serious brain disorder that impacts daily living through memory loss and cognitive changes. Although not all memory loss indicates Alzheimer’s disease, one in ten people over 65 years of age, and over half of those over 85 have Alzheimer’s disease. Currently, 26 million people worldwide have this dementia, and over 15 million Americans will be affected by the year 2050.

Symptoms of Alzheimer’s disease usually develop slowly and gradually worsen over time, progressing from mild forgetfulness to widespread brain impairment. Chemical and structural changes in the brain slowly destroy the ability to create, remember, learn, reason, and relate to others. As critical cells die, drastic personality loss occurs and body systems fail.

Who is at risk of Alzheimer’s disease?

- The primary risk factors of Alzheimer’s are age, family history, and genetics. However, there are other risk factors that you can influence. Maintaining a healthy heart and avoiding high blood pressure, heart disease, stroke, diabetes, and high cholesterol can decrease the risk of Alzheimer’s. Watch your weight, avoid tobacco and excess alcohol, stay socially connected, and exercise both your body and mind.

- Early-onset Alzheimer’s affects patients under the age of 65. This relatively rare condition is seen more often in patients whose parents or grandparents developed Alzheimer’s disease at a young age, and is generally associated with three specific gene mutations (the APP gene found on chromosome 21, the PSI gene on chromosome 12, and the PS2 gene on chromosome 1).
Signs and symptoms of Alzheimer's disease

For many people, detecting the first signs of memory problems in themselves or a loved one brings an immediate fear of Alzheimer’s disease. However, most people over 65 experience some level of forgetfulness. It is normal for age-related brain shrinkage to produce changes in processing speed, attention, and short term memory, creating so-called “senior moments.” Forgetfulness is merely inconvenient, though, and generally involves unimportant information. Understanding the significance of these age-related changes begins with knowing the difference between what is normal and what is an early symptom of Alzheimer’s.

Signs Of Normal Change vs. Early Alzheimer’s Symptoms

<table>
<thead>
<tr>
<th>Normal</th>
<th>Early Alzheimer’s Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can’t find your keys</td>
<td>Routinely place important items in odd places, such as keys in the fridge, wallet in the dishwasher</td>
</tr>
<tr>
<td>Search for casual names</td>
<td>Forget names of family members and common objects, or substitute words with inappropriate ones</td>
</tr>
<tr>
<td>Briefly forget conversation details</td>
<td>Frequently forget entire conversations</td>
</tr>
<tr>
<td>Feel the cold more</td>
<td>Dress regardless of the weather, wear several skirts on a warm day, or shorts in a snow storm</td>
</tr>
<tr>
<td>Can’t find a recipe</td>
<td>Can’t follow recipe directions</td>
</tr>
<tr>
<td>Forget to record a check</td>
<td>Can no longer manage checkbook, balance figures, solve problems, or think abstractly</td>
</tr>
<tr>
<td>Cancel a date with friends</td>
<td>Withdraw from usual interests and activities, sit in front of the TV for hours, sleep far more than usual</td>
</tr>
<tr>
<td>Make an occasional wrong turn</td>
<td>Get lost in familiar places, don’t remember how you got there or how to get home</td>
</tr>
<tr>
<td>Feel occasionally sad</td>
<td>Experience rapid mood swings, from tears to rage, for no discernible reason</td>
</tr>
</tbody>
</table>

What else can cause Alzheimer’s symptoms?

Significant cognitive and memory loss are not symptoms of normal aging. However, these symptoms do not always indicate Alzheimer’s disease. Other conditions can also cause mental decline.

Symptoms that mimic early Alzheimer’s disease may result from:

- **Central nervous system and other degenerative disorders**, including head injuries, brain tumors, stroke, epilepsy, Pick’s Disease, Parkinson’s disease, Huntington’s disease.
- **Metabolic ailments, such as** hypothyroidism, hypoglycaemia, malnutrition, vitamin deficiencies, dehydration, kidney or liver failure.
- **Substance-induced conditions, such as** drug interactions, medication side-effects, alcohol and drug abuse.
- **Psychological factors, such as** dementia syndrome, depression, emotional trauma, chronic stress, psychosis, chronic sleep deprivation, delirium.
- **Infections, such as** meningitis, encephalitis, and syphilis.

Diagnosing Alzheimer’s disease

Since there is no single definitive medical test for identifying Alzheimer’s disease, arriving at the correct diagnosis can take time and patience. The most important step is to assess past and present functioning. Determining classic patterns can not only help your doctor eliminate other causes of
Alzheimer’s symptoms, but also distinguish Alzheimer’s from other forms of dementia. Your doctor will gather family history information, order medical tests, and estimate your memory loss using a variety of assessments. To diagnose Alzheimer’s disease from your symptoms, a doctor will look for:

- **Significant memory problems** in immediate recall, short-term, or long-term memory.
- **Significant thinking deficits** in at least one of four areas: expressing or comprehending language; identifying familiar objects through the senses; poor coordination, gait, or muscle function; and the executive functions of planning, ordering, and making judgments.
- **Decline severe enough** to interfere with relationships and/or work performance.
- **Symptoms that appear gradually** and become steadily worse over time.
- **Other causes to be ruled out** – to ensure memory and cognitive symptoms are not the result of another medical condition or disease, such as Mild Cognitive Impairment.

How is Mild Cognitive Impairment different from Alzheimer’s?

Recent research examining Mild Cognitive Impairment (MCI) reveals biological changes identical to those seen in an Alzheimer’s brain. Considered by some to be an intermediate stage between normal aging and the onset of Alzheimer’s disease, MCI is characterized by persistent forgetfulness, but lacks many of the more debilitating symptoms of Alzheimer’s disease. MCI often precedes the early stages of Alzheimer’s. In other cases, patients plateau at a relatively milder stage of decline, and are able to live independently with little help from others. Understanding how these conditions progress to dramatically different outcomes continues to be a source of scrutiny and study.

Stages of Alzheimer’s disease

If you or a loved one is dealing with a diagnosis of Alzheimer’s, your doctor may have provided information on stages in the diagnosis. These stages can provide general guidelines for understanding the progression of Alzheimer’s symptoms and planning appropriate care. However, it is important to remember that each individual with Alzheimer’s progresses differently. Cognitive, physical, and functional phases often overlap, the time in each stage varies widely from patient to patient, and not everyone experiences all Alzheimer’s symptoms. Your doctor or local support groups can often provide firsthand information about the different Alzheimer’s stages and tips on handling them.

The three stage Alzheimer’s disease model

- **Stage 1 - Mild/Early (lasts 2-4 yrs)** - Frequent recent memory loss, particularly of recent conversations and events. Repeated questions, some problems expressing and understanding language. Mild coordination problems: writing and using objects becomes difficult. Depression and apathy can occur, accompanied by mood swings. Need reminders for daily activities, and may have difficulty driving.
- **Stage 2 - Moderate/Middle (lasts 2-10 yrs)** - Can no longer cover up problems. Pervasive and persistent memory loss, including forgetfulness about personal history and inability to recognize friends and family. Rambling speech, unusual reasoning, and confusion about current events, time, and place. More likely to become lost in familiar settings, experience sleep disturbances, and changes in mood and behavior, which can be aggravated by stress and change. May experience delusions, aggression, and uninhibited behavior. Mobility and coordination is affected by slowness, rigidity, and tremors. Need structure, reminders, and assistance with the activities of daily living.
- **Stage 3 - Severe/Late (lasts 1-3+ yrs)** - Confused about past and present. Loss of ability to remember, communicate, or process information. Generally incapacitated with severe to total loss of verbal skills. Unable to care for self. Falls possible and immobility likely.
Problems with swallowing, incontinence, and illness. Extreme problems with mood, behavior, hallucinations, and delirium. In this stage, the person will need round the clock intensive support and care.

**Sample Seven Stage Model of Alzheimer’s Disease**

In addition to the three stages of Alzheimer’s, your doctor may also use a diagnostic framework with five, six, or seven levels. Progression through these stages usually lasts from 8 to 10 years, but can sometimes stretch out as long as 20 years.

The seven stage Global Deterioration Scale, also known as the Reisberg Scale, includes the following dimensions:

- **Stage 1 – No impairment.** Memory and cognitive abilities appear normal.
- **Stage 2 – Minimal Impairment/Normal Forgetfulness.** Memory lapses and changes in thinking are rarely detected by friends, family, or medical personnel, especially as about half of all people over 65 begin noticing problems in concentration and word recall.
- **Stage 3 – Early Confusional/Mild Cognitive Impairment.** While subtle difficulties begin to impact function, the person may consciously or subconsciously try to cover up his or her problems. Expect to experience difficulty with retrieving words, planning, organization, misplacing objects, and forgetting recent learning, which can affect life at home and work. Depression and other changes in mood can also occur. Duration: 2 to 7 years.
- **Stage 4 – Late Confusional/Mild Alzheimer’s.** Problems handling finances result from mathematical challenges. Recent events and conversations are increasingly forgotten, although most people in this stage still know themselves and their family. Experience problems carrying out sequential tasks, including cooking, driving, ordering food at restaurants, and shopping. Often withdraw from social situations, become defensive, and deny problems. Accurate diagnosis of Alzheimer’s disease is possible at this stage. Lasts roughly 2 years.
- **Stage 5 – Early Dementia/Moderate Alzheimer’s disease.** Decline is more severe and requires assistance. No longer able to manage independently or unable to recall personal history details and contact information. Frequently disoriented regarding place and or time. People in this stage experience a severe decline in numerical abilities and judgment skills, which can leave them vulnerable to scams and at risk from safety issues. Basic daily living tasks like feeding and dressing require increased supervision. Duration: an average of 1.5 years.
- **Stage 6 – Middle Dementia/Moderately Severe Alzheimer’s disease.** Total lack of awareness of present events and inability to accurately remember the past. People in this stage progressively lose the ability to take care of daily living activities like dressing, toileting, and eating but are still able to respond to nonverbal stimuli, and communicate pleasure and pain via behavior. Agitation and hallucinations often show up in the late afternoon or evening. Dramatic personality changes such as wandering or suspicion of family members are common. Many can’t remember close family members, but know they are familiar. Lasts approximately 2.5 years.
- **Stage 7 – Late or Severe Dementia and Failure to Thrive.** In this final stage, speech becomes severely limited, as well as the ability to walk or sit. Total support around the clock is needed for all functions of daily living and care. Duration is impacted by quality of care and average length is 1 to 2.5 years.

**Coping with an Alzheimer’s diagnosis**

An Alzheimer’s diagnosis is an enormous adjustment for both you and your loved ones. For many, the secrets to navigating this journey are learning, supporting, and loving. While there is currently no cure for Alzheimer's disease, there are treatments available for the symptoms. These treatments
cannot prevent Alzheimer’s from progressing but if symptoms are diagnosed early enough, they can be effective in delaying the onset of more debilitating symptoms. Early diagnosis can prolong independence and is the first step towards treatment, management, and living life fully.

If your symptoms have been diagnosed as Alzheimer’s

You may not know what to think if you’ve been diagnosed with Alzheimer’s. You may be furious that you have to deal with this, scared about what the future will bring, uncertain about how your memory will change- or all of these emotions at once. These feelings are all normal.

- **Give yourself some time to adjust.** As with any major change in life, don’t expect that you will smoothly snap into this new transition. You may feel alright for a while, and then suddenly feel stressed and overwhelmed again. Take time to adjust to this new transition.
- **Reach out for support.** Living with Alzheimer’s is not easy, but there is help in this journey. The more you reach out to others and get support, the more you will be able to cope with Alzheimer’s symptoms while continuing to enrich and find meaning in your life.
- **Make your wishes known.** While it’s not easy to think about, getting your finances in order and figuring out how you want your healthcare handled gives you power over your future. Talk with your family and loved ones and let them know what is important to you. Who do you trust to make decisions for you when you are no longer able to do so?

If a loved one’s symptoms have been diagnosed as Alzheimer’s

If a family member or loved one has been diagnosed with Alzheimer’s, you will also be dealing with a host of emotions. You may be grieving for your loved one, especially if significant memory loss is already present. You may feel like you no longer know this person, as new behaviors and moods develop that are unlike the person you remember. You may start to become overwhelmed with the needs of your loved one, or even resentful that other family members won’t help enough.

- **Learn as much as you can.** Understanding what to expect will help you plan for care and transitions. Knowledge will help you both honor a loved one’s strengths and capabilities throughout each stage, and make sure you have the strength and resources to carry on.
- **Don’t take on the caregiving journey alone.** No matter how dedicated you are, at some point you will need some help in caregiving. No one can be awake and alert 24 hours a day. You have your own health and other obligations to consider. Having support in caregiving is key, whether it be from other family, in-home help, respite care, or making the decision to move your loved one to an assisted living or nursing home.

http://www.helpguide.org/elder/alzheimers_disease_symptoms_stages.htm

85. Vigorous Exercise can heal Heart, says Study
Nov 5, 2012

A new study says that regular and vigorous exercise can activate dormant stem cells in the heart which heal the damage caused by a heart attack. The study by Liverpool John Moores University is the first to suggest that a simple exercise programme has an effect similar to that of the stem cells, when they are cajoled into producing new tissues through special shots.

Strenuous exercises include 30 minutes of running or cycling daily, enough to work up a sweat, the European Heart Journal reports. A study on healthy rats showed that an equivalent amount of exercise resulted in producing more than 60 percent of heart stem cells, usually dormant in adults, becoming active, the Telegraph reports. After two weeks of exercise the mice had a seven percent increase in the number of cardiomyocytes, the ‘beating’ cells in heart tissue.
The John Moores team said they would now study the effects on mice which had suffered heart attacks to determine whether it could have an even greater benefit. ‘The exercise is increasing the growth factors which are activating the stem cells to go on and repair the heart, and this is the first time that this potential has been shown,’ said Georgina Ellison, from the John Moores University, who led the study. ‘We hope it might be even more effective in damaged hearts because you have got more reason to replace the large amount of cells that are lost,’ Ellison added.

Although some patients with severe heart damage may not be capable of intensive exercise, Ellison said a significant number would easily be able to jog or cycle for 30 minutes a day without risking their health.

Jeremy Pearson, professor and associate medical director of the British Heart Foundation, which funded the research, said: ‘However, much more research is now needed to find out whether what’s been seen in this study can be translated into treatments for human patients.’

Source: IANS


86. Donated Stem Cells may work Best for Heart Patients

Nov 5, 2012

(Reuters) - Stem cells culled from the bone marrow of healthy donors work as well or even better as cells harvested from patients themselves as a treatment for damaged hearts and are more convenient to use, according to new research.

The 13-month trial was the first to compare the safety and effectiveness of so-called mesenchymal, or bone marrow-derived, stem cells taken from patients themselves versus those provided by donors.

Such adult stem cells that renew themselves and mature into specific cell types have been used for 40 years in bone marrow transplants.

Scientists are now exploring their use as treatments for ailments such as heart disease and inflammatory conditions, some of the biggest markets in medicine.

The rationale behind using patients’ own stem cells to treat disease is that they do not trigger an attack by the body's immune system. Mesenchymal stem cells, however, are also not recognized as foreign tissue.

Researchers from the University of Miami Miller School of Medicine, funded by the National Institutes of Health, found that previously prepared cells from a healthy donor were comparatively safe and may offer the most convenience since it takes up to eight weeks to grow the amount of stem cells needed for the treatment.

The study involved 30 patients whose hearts were damaged by an earlier heart attack. Half received heart-muscle injections of their own cells, while the other half received donor cells.

Scar tissue was reduced by 33 percent in both groups, a result researchers called "very, very significant."

Improvements in heart function were seen in 28 percent of those receiving donor cells, and in 50 percent of patients receiving their own cells.

After a year, five patients in the donor cell group and eight who received their own cells suffered serious adverse events.
"The trials so far have very small patient numbers," said Stefanie Dimmeler, director of the Institute of Cardiovascular Regeneration Center of Molecular Medicine at Johann Wolfgang Goethe University in Frankfurt, Germany. "I think this early work in cardiac stem cells look very promising."

The trial results were presented here at the annual scientific meeting of the American Heart Association and published in the Journal of the American Medical Association.

Companies working to develop off-the-shelf stem cell treatments include Celgene Corp, Pluristem Therapeutics Inc, Athersys Inc and Mesoblast Ltd.

(Editing by Bernard Orr)

http://www.reuters.com/article/2012/11/06/us-heart-stemcells-idUSBRE8A501Y20121106

87. Vitamin D Deficiency in Teens a Serious Problem

The writer has posted comments on this article IANS | Nov 7, 2012,

Does your teenage daughter often complain of backache and joint pain? Is your college-going cousin always lethargic? Vitamin D deficiency among youngsters, which causes such problems, is becoming common these days and is a growing health concern, doctors say.

Vikas Ahluwalia, senior consultant of Internal Medicine at Max Super Specialty hospital, said that vitamin D deficiency among young people has increased over the last couple of years, especially in metros like Delhi.

"We have observed a rising number of cases of young people coming with complaints like backache, leg pain, joint pain and lethargy, which relate to vitamin D and vitamin D3 deficiency. It's a cause of concern," Ahluwalia said.

The trend is mostly seen in metros, like Delhi, he added.

"What is even more worrying is that children as young as 16, who are in the growing stage of their life, are coming with such problems," Ahluwalia said.

Paediatrician Anju Virmani of the Indraprastha Apollo hospital agreed.

"Vitamin D deficiency is becoming very common these days, and it's affecting different sets of population. Among kids too it is becoming common," Virmani said.

"Scientific studies show that vitamin D deficiency is increasing in each decade. So the deficiency in the population between 2000 and 2010 was more than the previous decade. And the urban population is more affected than its rural counterpart," she added.

The root cause of the problem is lifestyle-related, doctors say.

"It starts right at the beginning - when a woman is pregnant. If she is low on vitamin D, so will the child be. If there is not enough breastfeeding, the child will have this and all sorts of other problems when he or she grows older," Virmani said.

Young office goers, in their twenties and early thirties, who mostly have desk jobs and work in air-conditioned offices, also come with similar complaints.
"I remember one patient who came to us with a fracture. She was married for just six months and we were concerned if it had to do with domestic abuse. But after two days, her other leg too had a fracture, removing our doubts, because it meant that her bones were very brittle because of vitamin D deficiency," she added.

Exposure to sunlight is the biggest source of vitamin D - something that we consciously avoid under various pretexts.

"We are a nation obsessed with fair skin although we are naturally blessed with more melanin which is meant to protect, unlike our Western counterparts who also have higher incidence of skin cancer. So people here put lots and lots of sunscreen and sit behind tinted glasses that blocks UV rays. This is not always healthy," said Ashu Agarwal, consultant in internal medicine at a private hospital in Delhi.

Pollution too blocks the sun's rays, she added.

"Children these days hardly play outside. They are running from school to tuitions and then when they play, it's mostly video games in their rooms. So there is not enough exposure to sunlight," Ahluwalia said.

"Also, the common trend in all the kids with vitamin D deficiency is that they don't take milk or milk products. So where do you get your calcium? Fast food has added to the problem. The normal range of vitamin D is 30 (nanogrammes per millilitre of blood) and at times we get children with 3-4; so that's how severe the problem can get," he added.

Virmani advises parents not to encourage their children, especially their young daughters who are more conscious about their weight, to have low fat milk. "It hardly does any good and doesn't slim you down," Virmani said.

"The good thing is that tests for vitamin D are easily available and more reliable nowadays, so you can keep a check on it by maintaining a healthy lifestyle and ensure that your children do too. Ultimately your health is in your hands," Agarwal said.


88. Pregnant Women beware

London, Mon Nov 12 2012

Cell phone radiation exposure during pregnancy impacts foetal brain development and may cause hyperactivity, researchers say.

Yale School of Medicine researcher, Dr Hugh Taylor co-authored the latest study to probe the impact of cell phone exposure on pregnancies.
"We had pregnant mice in cages and we just simply put a cell phone on top of the cage. In half the mice, the cell phone was active and in half of the ... cages the cell phone was turned off so it wasn't transmitting a signal at all," Taylor said.

Researchers allowed the mice to give birth and waited until offspring were young adults before behaviours were tested, the 'Daily Mail' reported.

"The mice exposed to cell phones were more active. Their memory was slightly decreased ... these mice were basically bouncing off the walls and didn't have a care in the world," Taylor said.

The study shows there is a "biological basis" to suggest cell phone exposure can impact pregnancies, said Taylor.

Patients should be cautious with devices and recommends pregnant women hold phones away from their body, he said.

According to recent numbers published by the UN telecom agency, the world now has almost as many cell phone subscriptions as inhabitants, the report said.

The World Health Organisation's cancer arm, in 2011, said cell phones could cause cancer and called for more research, it said.

http://www.indianexpress.com/news/pregnant-women-beware-/1030385/

89. Quarter of World's Pneumonia Child Deaths in India

The writer has posted comments on this article TNN | Nov 13, 2012

KANPUR: Doctors of the Academy of Paediatrics advised locals to take extra care of their kids in the prevailing weather conditions and keep pneumonia at bay. They were speaking at a press conference on Pneumonia Day here on Monday and emphasised strengthening immunity and resistance to fight the killer disease.

Commenting on pneumonia deaths among young children in India, president of the academy Dr Rashmi Kapoor informed that the disease globally killed an estimated 1.4 million children below the age of five years every year-more than AIDS, malaria and tuberculosis together did. It is alarming that India accounts for almost 25 per cent of the world's pneumonia deaths of children.

"Pneumonia accounts for 20 per cent deaths among children below 5 years of age becoming the leading cause of death in the age group. According to the IAP records, annually, India witnesses 45 million pneumonia cases among children below 5 years of which 0.37 million die due to pneumonia," added Dr Kapoor.

The experts also stressed the government should take serious steps towards introduction of pneumococcal conjugate vaccine (PCV) which immunises children against pneumonia and other
diseases caused by streptococcus pneumoniae.

They also stressed creation of a clean environment, addressing the issue of malnutrition and breast feeding for the first 6 months, timely immunisation and appropriate healthcare during delivery to reduce significantly mortality rates due to vaccine preventable diseases like pneumonia.

"Try to take extra precautions for kids under the 5 years of age with the onset of winters. Consult doctor immediately in case of prolonged cough, cold or fever," said Dr Saurabh Dwivedi, another paediatrics.


90. Screen Children too for Diabetes
IANS | Nov 14, 2012

If you are under the impression that diabetes is an old man's disease, you are wrong. More and more children are falling prey to this lifestyle disease and doctors say it is best to screen children too.

The theme of this year's World Diabetes Day, being observed Wednesday, is: “Protect Our Future”.

"There has been an increase in the number of patients coming to clinics for diabetes screening in the last decade. The number of young people falling prey to the disease is also increasing," said I.P.S. Kochar, paediatric and adolescent endocrinologist and diabetologist at Fortis Hospital here.

Type I diabetes, which is not lifestyle-induced, is more common among children. Doctors say the issue of concern, however, is the rising cases of Type II diabetes, which occurs due to lifestyle disorders.

"Type I diabetes is when the pancreas doesn't create insulin, and that is what mostly affects children. But these days, we are also seeing Type II diabetes, which is when insulin is secreted but fails to work. This type is lifestyle-induced," Jean Claude Mbanya, president of the International Diabetes Federation (IDF), said.

According to IDF, there are over 61 million patients of diabetes in India.

The Juvenile Diabetes Research Foundation (JDRF) says there are about a million children with Type I diabetes in India.

Mbanya blamed sedentary lifestyle for it.

"Our children are becoming obese. The prevalence of diabetes is on the increase because of increasing weight and lack of activity," he said.

Wondering how children could be encouraged to be more active, the IDF president said: "Where are the playgrounds? How do we motivate our children to lead a healthy lifestyle?"

Kochar said there was an average increase of one to four percent in the incidence of Type I diabetes and four to six percent in the case of Type II diabetes over the past decade.
Listing symptoms, Kochar said: "If the child is drinking too much water, urinating more frequently than he used to, has gained weight, or feels hungry more frequently, it is a warning sign."

Archna Dayal Arya, consultant endocrinologist and diabetologist at Sir Ganga Ram Hospital recommends regular screening after the age of ten.

"Parents need to watch that children are not overweight. After the age of 10, regular screening should be done, especially if symptoms are noticed," she said.

According to A.K. Jhingan, chairperson of the Delhi Diabetes Research Centre, the disease is more common among children in metros than in rural areas.

"Children in urban centres, specially in a metropolis like Delhi, are more prone to diabetes, as the lifestyle is flawed and physical activity sometimes nil," he said.


91. Exercise to Control Diabetes

The writer has posted comments on this article By Renita Tisha Pinto Renita Tisha Pinto, Health Me Up | Nov 19, 2012

"Exercise is the best thing to control your glucose level," says Dr. Sunita Pathania - Sr. Registered Dietician and Diabetes Educator, Healthy Living Diet Clinic, Mumbai. She adds, "Exercise is beneficial for most people with diabetes; regular activity is important for overall fitness, weight management and blood sugar control."

However, before beginning any exercise program, it is important to consult your doctor. Exercise is the most beneficial when the blood glucose is below 200 mg/dL. Regular exercise is more beneficial than sporadic exercise and best done 60 to 90 minutes after eating.

With exercise, those with diabetes can improve control, and those at risk for Type 2 diabetes can reduce that risk. Being active can also help enhance weight loss, help control blood fat levels (cholesterol and triglycerides) and blood pressure, as well as reduce stress. If the patient is already active, he/she can increase the intensity or frequency after discussing with his/her doctor or health care provider.

If the patient is not currently active, a safe activity plan can be discussed and agreed upon. Start by taking small steps: Walk the dog, take the kids to the park, ride a bicycle to work, get down from the bus a stop earlier and walk to your destination, climb stairs etc. Everything counts! But don't stop there. Physical activity is good, but it cannot replace the benefits of actual exercise.


92. Spurt in Diabetes Cases tied to Obesity, Poor Diet

Jaya Shroff Bhalia, Hindustan Times
New Delhi, November 15, 2012
Samaira Khan, 32, developed diabetes when she was only 27 years old. “I used to weigh 90kg. While genes were partially responsible, it was my love for eating good food that caused the real problem,” she said. Khan, who is an engineer with a multi-national firm, said she had a difficult time coping with diabetes. “I could not come to terms with the fact that I had to completely do away with sugar. The first time I was diagnosed, my sugar levels were over 400 mg/dL (normally, the levels should be less than 110 mg/dL).

Kaushambi-resident Mridula K Verma, 24, who has had Type 1 diabetes since she was four years old, says she has learnt how to hand her sugar levels. “At school, my sugar levels would fluctuate and I had to be careful when I was on insulin injections,” she says. “Pumps have made diabetes management easy,” Mridula adds.

Rising Numbers

One in every five patients at any general clinic has diabetes. “Poor eating habits, obesity and lack of physical exercise are triggering the rise in the number of young diabetic cases,” says Vikas Ahluwalia, senior consultant, internal medicine, Max Super Speciality Hospital, Saket.

Researchers have now identified a gene called myostatin, which leads Indians to have more body fat and low muscle mass, factors important for genesis of diabetes, lipid disorders and heart diseases.

“In this study, we clearly show that there is a genetic basis of not only low muscle but also more fat in Indians,” said Dr Surya Prakash Bhatt, co-investigator of the study and researcher at AIIMS. The study was published online in Journal Plos One (USA).

Rent-a-pump, Mom

One in 10 pregnant women develops diabetes in their second trimester. In the past six months, a pilot project at Indraprastha Apollo Hospitals has treated diabetic pregnant patients with excellent maternal and foetal outcomes using insulin pumps.

“Considering its high cost (Rs 2 lakh) and the fact that the pump is usually required only transiently during pregnancy, we are letting out insulin pumps,” said Dr SK Wangnoo, senior consultant endocrinologist and diabetologist, Apollo Hospitals.

“We have enrolled about 12 patients so far, of who about three have delivered successfully. The usual insulin shots involve multiple needle pricks along with a risk of sugar fluctuation, which is not good for the mother or the baby,” he said. Insulin pumps provide continuous insulin delivery and also display blood sugar levels every five minutes.

Curing Diabetes Foot

Fortis hospital has introduced Hyperbaric Oxygen Therapy (HBOT) at Fortis C-DOC Diabetes & Allied Disorders Hospital for treating diabetic foot and wounds. “HBOT is the administration of 100% oxygen to a patient in a pressurised environment. The combination of pressure and oxygen
increases the number of oxygen molecules that are dissolved in the blood plasma, which is then delivered to the tissues,” Dr Ashok Damir, head, Advanced Centre for Diabetic Foot & Wound Management, Fortis C-DOC.

**Size Wise**

Your weight or having a wide girth puts you at risk of diabetes.

While Body Mass Index (BMI) under 23 indicates healthy weight, you must make sure your abs are as flat as possible.


**93. Smoking killed 100 Million in 100 Years**

New Delhi, Sun Nov 25 2012

Nearly 45 trillion bidis and cigarettes manufactured over the past 100 years in the country are expected to be responsible for nearly 100 million deaths of adult Indians, a recent study has found.

"Our calculations are derived from using the most conservative estimates and yet present mortality estimates which are significant and alarming," researchers Pranay G Lal, Nevin C Wilson and Prakash C Gupta said in a study published in Current Science.

While Lal and Wilson are associated with the South-east Asia office of the International Union Against Tuberculosis and Lung Disease, Gupta is with the Healis-Sekhsaria Institute for Public Health, Navi Mumbai.

The study concluded that of the estimated 100 million deaths due to tobacco use, smoking bidis alone contribute to 77 million deaths.

The researchers have pressed for an urgent review of tobacco control interventions and re-examination of policies that promote the tobacco industry in India.

They said since it takes three to four decades for a smoker to die after he starts smoking, the current tobacco use was expected cause deaths only in the coming decades.

"For consumption in the last four decades, the mortality may be partially realised and some of the deaths will occur in near future", they said.

"Since the bulk of manufacturing and consumption occurred in the latter part of the last century, the early deaths of these smokers will happen in the first half of this century."
The study has estimated that there were about 190 million and 41 million lifetime bidi and cigarette smokers, respectively, in the country from 1910-2010.

"So in effect, if we were to cease all production and consumption in 2010, deaths would continue to take place. Less than one-fourth of the deaths from 100 year of smoking (from 1910-2010) have already taken place, and the three-fourths of the deaths will take place in the next 40 years”, the study said.

The researchers have reviewed 23 data sources including industry reports, trade and academic journals, paid internet databases, repositories and reports prepared by market research firms from 1920 to arrive at the estimated number of cigarettes manufactured over the last 100 years.

To derive total bidis produced, they used total bidi tobacco produced in India using data from the Ministry of Agriculture and divided it by the average tobacco contained in each bidi. These estimates were compared with 14 other sources.

http://www.indianexpress.com/news/smoking-killed-100-million-in-100-years/1036155/

94. Infertility rises at Alarming Pace in India

English.news.cn 2010-07-16

By Sharmistha Dey

MUMBAI, July 16 (Xinhua) -- Indian newspaper headlines frequently report about rising inflation, especially food inflation, and how it is affecting India's population.

Health wise, the country is doing no better. As if rising rate of public health challenges such as diabetes, hypertension (high blood pressure) and heart disease were not enough, statistics reveal more and more couples in India are finding it difficult to procreate.

Medical case studies, anecdotal evidence as well as the rising number of infertility clinics in urban areas of the country are pointing to the fact that infertility is becoming a health challenge in the country.

According to a report conducted by the International Institute of Population Sciences, infertility is growing at an alarming pace, especially in the cities.

Out of around 250 million individuals estimated to be attempting parenthood at any given time, 13 to 19 million couples are likely to be infertile.

Although the national census does not head count infertile couples, this study, which takes into account the national census reports of the past three decades, viz, 2001, 1991 and 1981, showed that infertility has risen by 50 percent in the country.

The report said that in India, 13 percent of ever-married women aged 15-49 years were childless.
in 1981 (rural 13.4 percent and urban 11.3 percent) which increased to 16 percent in 2001 (rural 15.6 percent and urban 16.1 percent). Over half of married women aged 15-19 years were childless in 1981, which increased to 70 percent in 2001.

Nearly 30 million couples in the country suffer from infertility, making the incidence rate 10 percent. Earlier childlessness in a couple used to be talked about in hushed tones, with the problem, without doubt, being attributed to the women.

Today, infertility is no longer recognized as only a female problem. In fact, the term infertility is a broad term, often loosely used. It actually refers to a range of disorders some of which affect the male, and some the female, and contribute to childlessness in a couple.

There is also something called unexplained infertility, where doctors fail to come up with a medical explanation for the couple’s inability to conceive.

Study reports suggested that male infertility is almost as high as female infertility. One in every five healthy young men between the age from 18 to 25 suffer from abnormal sperm count.

In every 100 couples, 40 percent of the males suffer from infertility compared to 50 percent women. In the remaining 5 percent, the causes are common to both men and women.

Some common causes of infertility in men are irregular sperm production, hampered sperm delivery due to either erectile dysfunction or early ejaculation, presence of medical conditions such as obesity that may hamper sperm production, certain infections such as Sexually Transmitted Diseases (STDs), and lifestyle conditions such as diet imbalance, addiction to smoking or alcoholism, sedentary existence, or mental and emotional stress, all of which contribute to poor sperm count.

In women, hectic lifestyle and job stress contribute to conception problems. A very common cause is polycystic ovary disease (PCOD), a condition characterized by excess production of hormones and lack of ovulation.

There are others as well such as genital tuberculosis (a chief factor in rural India) fallopian tube defects, endometriosis, a condition characterized by abnormal growth in the woman's reproductive system, multiple partners and STDs that may permanently destroy the woman's reproductive system, obesity, use of certain medication, and smoking and alcohol consumption.

Another factor, noted Dr. Anita Soni, gynaecologist and obstetrician, Hiranandani Hospital Mumbai, is the declining libido among couples living in cities. "Busy and stressful lifestyles are reasons behind the drop in libido and regular sexual activity among couples," she said, adding "stress levels are very high among city populace; combine that with poor eating habits and increase in medical conditions such as diabetes and you find the key to lack of quality and quantity of sperms and eggs. Vices such as smoking, tobacco consumption, drinking, obesity and hormonal imbalances such as polycystic ovaries and hypothyroidism are also responsible for this."

There is also delayed marriage and deferred childbirth among couples; by the time the new-age, career-oriented urban Indian woman is ready to have a child, her biological clock has already slowed down, and she needs the help of artificial and assisted technology for childbirth.

Couples walking into infertility clinics and asking about assisted methods of reproduction is common these days unlike in the past. This explains the rising number of infertility clinics in metros and urban
parts of the country and long queues outside them.

The IVF industry, in fact, reportedly has a year-on-year growth of 20 to 30 percent with around 40,000 IVF cycles done every year.

Advanced fertility treatments include IVF or in vitro fertilization, in which case the eggs are removed from the woman's ovaries and fertilized with sperms in a fluid medium before transferring it to the woman's uterus; IUI or intrauterine insemination, which is a treatment used to increase the number of sperms reaching the fallopian tubes, therefore increasing the chance of fertilization.

There is also ICSI or intracytoplasmic sperm injection, in which case, a single sperm is injected into a single egg in order to achieve fertilization -- more often used in case of male infertility.

"With advances in technology, the success rate of artificial reproductive technology has steadily increased in the past few years; today the success rate with all of these are around 35 to 40 percent," said Dr. Soni.

Not every couple, however, can afford these treatments. While IUI may cost 3,000 to 15,000 rupees (60 to 300 U.S. dollars) approximately, one cycle of IVF may cost anywhere between 50,000 to 150,000 (1,000 to 3,000 U.S. dollars).

In case of ICSI, the price is even higher -- from 80,000 to 150,000 rupees (1,600 to 3,000 U.S. dollars).

None of these guarantee 100 percent success; there is evidence of many unlucky couples who continue to do the rounds of clinics and spend their money on these methods, in their quest to have a child.

As the number of childless couples continues to increase in the country, so will other ancillary problems such as more and more medicalized forms of procreation and social evils such as illegal adoption.


95. Eating More Fish may cut Young Women's Heart Disease Risk

English.news.cn 2011-12-06

WASHINGTON, Dec. 5 (Xinhua) -- Young women may reduce their risk of developing cardiovascular disease simply by eating more fish rich in omega-3 fatty acids, researchers reported Monday in Hypertension: Journal of the American Heart Association.

In the first population-based study in Danish women of childbearing age, those who rarely or never ate fish had 50 percent more cardiovascular problems over eight years than those who ate fish regularly. Compared to women who ate fish high in omega-3 weekly, the risk was 90 percent higher for those who rarely or never ate fish.
About 49,000 women, 15-49 years old, median age of just under 30 years in early pregnancy -- were interviewed by telephone or answered food frequency questionnaires about how much, what types and how often they ate fish, as well as lifestyle and family history questions.

Researchers recorded 577 cardiovascular events during the eight-year period, including five cardiovascular deaths in women without any prior diagnosis of the disease. In all, 328 events were due to hypertensive disease, 146 from cerebrovascular disease, and 103 from ischemic heart disease. Inpatient and outpatient admission for cardiovascular disease was much more common among women who reported eating little or no fish. In three different assessments over a 30-week period, women who never ate fish had a three-fold higher disease risk compared to women who ate fish every week.

"To our knowledge this is the first study of this size to focus exclusively on women of childbearing age," said Marin Strom, lead researcher and post doctoral fellow at the Center for Fetal Programming, at Statens Serum Institute in Copenhagen, Denmark. "We saw a strong association with cardiovascular disease in the women who were still in their late 30's."

Fish oil contains long chain omega-3 polyunsaturated fatty acids, which are believed to protect against heart and vascular disease. Few women in the study took fish oil supplements, so these were excluded from the analyses and the results were based on the dietary intake of omega-3 fatty acids, not intake from supplements.

The most common fish consumed by women in the study were cod, salmon, herring, and mackerel.

"Our study shows that for younger women, eating fish is very important for overall health, and even though we found cardio-protective effects at relatively modest dietary levels, higher levels may yield additional benefits," Strom said.


96. Taking Vitamin D may reduce the Risk of Alzheimer's Disease

By Leon Watson

PUBLISHED: 3 December 2012

Women should take Vitamin D supplements to reduce the risk of Alzheimer's disease, according to new research.

Two new studies show that women who don't have enough Vitamin D as they hit middle age are at greater risk of going into mental decline and developing Alzheimer's.

The first of the studies found that women who developed Alzheimer's disease had lower vitamin D intakes than those who did not develop the illness.

Dr Cedric Annweiler, of Angers University Hospital in France, looked at data from nearly 500 women who participated in the Toulouse cohort of the Epidemiology of Osteoporosis study.

He found that women who developed Alzheimer's had an average vitamin D intake of 50.3 micrograms a week, whereas those who developed other forms of dementia had an average of 63.6 micrograms per week, and those who didn't develop dementia at all averaged 59 micrograms.
The study highlights the role vitamin D plays in Alzheimer's, a severe form of dementia which causes the sufferer to become disoriented, aggressive, forgetful and find even quite basic tasks difficult to carry out.

There is no cure for the illness, which affects around 400,000 people in England - a figure which is steadily rising as people live for longer.

Meanwhile, investigators led by Yelena Slinin at the VA Medical Centre in the United States found that women with a low vitamin D intake were more likely to encounter cognitive decline.

Ms Slinin analysed the vitamin levels of 6,257 older women who also underwent mental ability tests known as the mini-mental state examination.

Low levels of vitamin D of less than 20 nanograms per millilitre of blood serum were associated with higher odds of mental decline.

Scientists say both studies, which were published in The Journals of Gerontology, underline the importance of getting enough vitamin D, either through exposure to the sun, food or supplements.