## Details of Health Updates – III

### Health Updates – News/New Researches

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33. New Treatment can permanently cure High Blood Pressure

Posted: Aug 27, 2012

**London:** Scientists have developed a radical therapy that could provide a permanent cure for high blood pressure by zapping the kidneys with radio waves.

The breakthrough by researchers from Baker IDI Heart and Diabetes Institute of Melbourne, Australia could bring hope to thousands of patients who do not respond to drugs.

The procedure known as renal denervation may be available on UK’s National Health Service as early as next year after trials showed it produced dramatic improvements in the condition, the Daily Mail reported.

High blood pressure is a risk factor in heart disease, stroke, and kidney failure.

Changes in lifestyle, such as cutting back on salt and alcohol and exercising, can control blood pressure and there are a number of drug treatments available.

Many who are on medication, as many as five different types, still have difficulty with it. It is this group who can be helped.

The technique uses a burst of radiofrequency energy delivered through a catheter to knock out a number of tiny nerves that run in the lining of the arteries of the kidney.

High blood pressure is sometimes caused by faulty signals from the brain to these nerves.

Latest findings from a trial showed reductions in blood pressure persist for at least 18 months after treatment.

A high blood pressure reading is one that exceeds 140/90 millimetres of mercury.

The latest trial involved more than 100 patients who had blood pressure readings of at least 178/97, despite taking three or more different drugs.

After 18 months, those having the procedure maintained a reduction of between 28/11 to 32/12.

"We are encouraged to see renal denervation shows substantial and sustained reduction in treatment-resistant patients," Dr Murray Esler from the institute was quoted as saying by the paper.

Although blood pressure does not sink to normal levels after treatment, it cuts the health risks of very high pressure.

The findings were presented at the European Cardiology Congress in Munich.

34. Why Today's Kids don't get Good Night's Sleep

ANI - Aug 27, 2012

Too many fizzy drinks and not enough bedtime stories are reasons why younger generation does not sleep as well as their grandparents, according to a new study.

Research by the Sleep Council found that today's seven to 14-year-old children go to bed almost 40 minutes later than their grandparents.

They are also much more likely to snack on crisps and fizzy drinks before bedtime while their grandparents enjoyed cocoa or hot milky drinks such as Horlicks.

Around 54 per cent of the older generation either had a story read to them or had a quiet time to read independently - whereas only 27 per cent of today's youngsters read before bedtime and 58 per cent watch television.

If parents ditched the bad habits, bedtime would be less stressful and their offspring would sleep better, experts claimed.

According to the survey - which asked 1,006 grandparents with grandchildren aged seven to 14, to compare their early lifestyle with that of their grandchildren - 21 per cent spent more than three hours each day playing outside.

That compares to the 28 per cent who said their grandchildren now spend less than 30 minutes playing outside on a school day.

Seventy per cent of grandparents ate dinner before 6pm but only 38 per cent of youngsters do so now. Just over half, 51 per cent, eat between 6pm and 7.30pm.

For 95 per cent of the older generation, the evening meal was home cooked but now a quarter of children eat ready-made meals.

"Seven to 14-year-olds still need a good nine or 10 hours sleep a night," the Daily Express quoted Jessica Alexander, of The Sleep Council, as saying.

"Not eating too close to bedtime and avoiding caffeine-fuelled fizzy pop is also important, as is a well balanced diet with plenty of fresh fruit and vegetables," she suggested.


35. Infants given Anaesthesia may face Learning Difficulties

Aug 29, 2012

Children who are given anaesthetic before the age of three are at a higher risk of developing learning difficulties, according to a new study.
Researchers led by the University of Western Australia found that children exposed to anaesthesia before the age of three were twice as likely to develop language impairment and three times more likely to have problems with abstract reasoning in childhood.

The study analysed long-term effects of anaesthesia on young children - using the Western Australian Pregnancy Cohort (Raine) Study, which is studying 2868 children born in Western Australia between 1989 and 1992.

"We looked at 321 children from the Raine study who were exposed to anaesthesia for surgery and diagnostic testing before the age of three and found they were about twice as likely to develop a significant language impairment and three times more likely to have problems with abstract reasoning by the age of 10, when compared to children who were not exposed to anaesthesia and surgery," Professor Regli-von Ungern-Sternberg from the university said.

"But the study does not allow us to determine if the cause of these increased impairments were due to anaesthesia, surgery or the medical condition that required the intervention," she added.

"Parents should consult their surgeon to see if the procedure is necessary. Any concerns regarding anaesthesia and potential anaesthetic implications for their child should be discussed with their anaesthetist before surgery," she said in a statement.

The study was published in the US journal Paediatrics.


36. Almond Oil helps Fight Obesity, Diabetes

ANI | Aug 30, 2012

Researchers, including one of Indian origin, have found that a future weapon in the battle against obesity and diabetes could come in the form of oil derived from the seeds of wild almond trees.

According to researchers at Missouri University of Science and Technology, the key to the oil's potential lies in its ability to affect certain microorganisms living in our bellies.

In the study, the researchers reported that adding sterculic oil to the diets of obese laboratory mice increased their sensitivity to insulin. This was due to the oil's effect on three types of microorganisms that live in the guts of the mice.

As a result, the researchers saw a "statistically significant improvement in glucose tolerance and insulin sensitivity in the obese mice," Shreya Ghosh, a Ph.D. student in environmental engineering at Missouri S and T, said.

The sterculic oil had no adverse affects on lean mice fed the same diet.
Sterculic oil is extracted from the seeds of the wild almond tree known as Sterculia foetida.

The research by Ghosh and her advisor, Dr. Daniel Oerther, builds upon previous studies conducted at the University of Missouri-Columbia. In those studies, sterculic oil was found to suppress the bodily enzyme Stearoyl-CoA Desaturase 1 (SCD1).

SCD1 is associated with insulin resistance, a condition that can lead to diabetes and obesity.

Other studies have shown that obese mice deficient in the hormone leptin have a different composition of "gut microbiota" than lean mice do.

Leptin helps regulate metabolism, and a deficiency of the hormone can contribute to obesity, says Oerther, the John and Susan Mathes Chair of Environmental Engineering at Missouri S and T.

In the Missouri S and T study, a diet supplemented by sterculic oil also correlated with lower levels of three types of gut microbiota - Actinobacteria, Bacilli and Erysipelotrichia - in the obese mice.

It isn't clear, however, whether the lower levels of that microbiota led to the improvement of glucose tolerance and insulin sensitivity among the obese mice, Oerther says.

To perform her experiments, Ghosh studied 28 male mice - 14 of them obese and 14 normal, and each of them five weeks old at the beginning of the study.

She separated the mice into four groups and for nine weeks, fed a standard diet to one group of obese mice and one group of non-obese mice.

Over the same period, she fed the same diet, supplemented with 0.5 per cent of sterculic oil, to one group of obese mice and one group of non-obese mice. Ghosh recorded the weights, food consumption and glucose levels of the mice during the nine-week period.

After the nine weeks, researchers conducted a DNA analysis of the gut microbiota at King Abdullah Institute of Science and Technology in Saudi Arabia.

The results confirmed correlations between the diet, improved glucose tolerance and groups of microbes. Even though the mice fed a diet with sterculic oil did not experience weight loss, both Ghosh and Oerther believe their findings could lead to new insights into controlling diabetes and weight gain.

The study was presented at the American Society for Microbiology's general meeting in San Francisco.


37. Ten Years to achieve Universal Health Coverage

Sep 3, 2012

According to consulting firm Ernst and Young (E and Y) the government of India needs to spend at least 4% of its GDP on basic healthcare requirement if it wants its universal health coverage
programme to work. Right now the government spends only 1% on healthcare services, which forces an estimated 39 million people into poverty.

According to the report, 80% urban households and 90% rural ones spend half their annual household expenditure on healthcare facilities resulting in financial hardships. The E and Y study was produced in collaboration with the Federation of Indian Chambers of Commerce and Industry (FICCI).

The scale of healthcare spending of country is a measure of its progress and lack of public healthcare services is one of the reasons for widespread poverty even while the masses struggle or fail to access quality care.

Healthcare spends forces 3% below poverty line annually

“It is estimated that 3% of India’s population slips below poverty line each year because of health-related expenses,” the report said, referring to a study that Ernst and Young had conducted in 2008.

“Drawing a framework for implementation and financing requirements for universal health coverage for the country, where the government guarantees equitable access to key preventive, curative and rehabilitative healthcare at affordable costs for all its citizens, was the mandate before us for the study,” Muralidharan M. Nair, a partner Ernst and Young Pvt. Ltd, and a member of the UHC project, said on Friday.

Implementing universal health coverage will increase the total expenditure to 4% and given the scale of implementation and infrastructure constraints it might take up to 10 years to achieve the healthcare-for-all goal.

It’s estimated that 3.7% to 4.5% of GDP by 2022 would be required to implement the UHC programme. This will contain out-patient services like consultation, drugs, diagnostic tests and also in-patient services currently covered under schemes like Rashtriya Swasthya Bima Yojana (RSBY) and Aarogyashree, which together covers 95% of the country’s most common ailments.

Govt. to play Financier

“This programme envisages the framework of tight central-state coordination and the central government will be the key financier. The funding resource will be direct taxes, which is contributed by the central and state governments,” Nair said. The cost structure of the programme is based on the healthcare rates that are arrived by analysing the most reasonable costs on which the best quality care can be provided factoring almost all medical interventions and preventive care, which is still lower than the prevailing market rates, he said.

“Currently, the bigger problem faced by the government is the absence of a comprehensive implementation framework as far as the healthcare programmes are concerned and not the funding,” said a senior health ministry official, who didn’t want to be identified.

The UHC programme looks to abolish healthcare inequality, particularly between the rural and urban areas. Due to lack of a central policy healthcare evolved as a private service which are mostly available in major urban hubs. The World Health Assembly had in 2005 urged all its member countries to work towards such a programme after considering the particular macro-economic, socio-cultural and political context of each country.
Remarkably, China the only country which faces similar healthcare issues due to its huge population has in the last couple of years managed to cover 84% of its population and currently spends over 5% of its GDP on healthcare services.


38. Now, Once a Day Anti-clot Tablet to treat Diabetes

September 05, 2012

London: A once-a-day drug that could revolutionise treatment for patients with Type 2 diabetes has been discovered by scientists.

The tablet can dramatically slash the chances of sufferers developing heart disease, one of the main fatal effects of diabetes.

It could even replace aspirin as the blood-thinning drug of choice for diabetics, the `Daily Express` reported.

Researchers at the University of the Highlands and Islands say the clot-busting drug is currently licensed for use in reversing the harmful effects of a paracetamol overdose.

Heart disease is the major cause of reduced life expectancy in patients with diabetes who have about twice the risk of developing a range of cardiovascular diseases.

The discovery found that a daily treatment of patients with the drug, which is called N-acetylcysteine, reduces clot formation in the blood and is more effective than aspirin.

The study is published in the journal `Diabetologia`.

PTI


39. Chemotherapy could impair Speech in Breast Cancer Patients

PTI Washington, September 9, 2012

Breast cancer patients who undertake chemotherapy are at risk of mild cognitive deficits like speech impairment after the treatment, researchers say.

Scientists at Moffitt Cancer Centre found that the study participants on average had mild impairments in verbal abilities such as difficulty choosing words and visuospatial abilities like getting lost more easily.
The study noted that cognitive functioning varies across survivors, with some reporting no impairments and others reporting more severe or pervasive deficits.

“The objective of our analysis was to clarify existing research on cognitive functioning in patients who had received standard dose chemotherapy for breast cancer at least six months previously,” said study lead author Heather S L Jim.

“Earlier studies had reported conflicting evidence on the severity of cognitive deficits, especially over the long term,” Jim said in a statement.

Although this is an active area of research, an overall analysis of the studies had not been performed since 2006, explained the researchers.

“Our analysis indicated that patients previously treated with chemotherapy performed significantly worse on tests of verbal ability than individuals without cancer,” said co-author Paul B Jacobsen.

“In addition, patients treated with chemotherapy performed significantly worse on tests of visuospatial ability than patients who had not had chemotherapy,” he said.

Jim suggested that breast cancer patients treated with chemotherapy who have subsequent cognitive deficits should be referred to a neuropsychologist for evaluation and management of the deficits.

“Management usually involves developing an awareness of the situations in which their cognitive difficulties are likely to arise so that they can come up with strategies to compensate. Research shows that such strategies can make a big difference in daily life when cognitive difficulties do arise,” he added.

The study was published in the Journal ‘Clinical Oncology’

http://www.thehindu.com/health/medicine-and-research/article3877422.ece

40. Vitamin A Intake could cure Cancer: Study

PTI London, September 9, 2012

Intake of vitamin A in diet could help treat several forms of cancer due to its ability to control the malignant cells, a new study has found.

Scientists have hailed the discovery as a “new dawn” in cancer treatment after finding a link between malignant cells and lack of vitamin A.

Experts at the University of York found that cancer cells are under control of a derivative of the vitamin, known as retinoic acid, the ‘Daily Express’ reported.

They believe that vitamin A can be used as new anti-cancer treatment and advised people to ensure they include adequate levels of the nutrient in their diets.

The study was carried out on prostate cancer cells but Professor Norman Maitland of Yorkshire Cancer Research believes the treatment could apply to other cancers as well.

“This may apply to a number of other cancers,” said Maitland.
Maitland, however, warned people not to rush out to buy vitamin A supplements, which could be toxic and even cancerous in high doses.

Instead he advised people to take vitamin A in their daily diet, including oily fish, carrots, liver, red pepper and dark leafy vegetables.

“We hope vitamin A will be used to prevent prostate cancer and we also believe that a derivative of vitamin A could help destroy prostate cancer cells or make them more treatable once they have started to spread. Clinical trials based on this research could herald a new dawn in treatment for prostate cancer patients,” he said.

He said that retinoic acid is already used to treat a blood cancer and has been extremely successful in improving survival rates to 80 per cent.

“It has been known for years that low vitamin A in samples of blood is associated with prostate cancer, but nobody knew the mechanisms involved. We have for the first time revealed a biological link,” Maitland said.

The study is published in the journal ‘Nucleic Acids’

http://www.thehindu.com/health/medicine-and-research/article3877427.ece?homepage=true

41. Half of Women may have Sleep Apnoea: Study

September 09, 2012

London: Nearly half of women may have mild-to-severe sleep apnoea, according to a new Swedish study.

As many as 50 per cent of 400 adult women who were given overnight sleep tests turned out to have the sleep disorder characterised by abnormal pauses in breathing or instances of abnormally low breathing, during sleep.

Scientists monitored sleep patterns of the women overnight and found that half experienced at least five episodes an hour when they stopped breathing for longer than 10 seconds - the minimum definition of sleep apnoea.

Among women with hypertension or who were obese, the numbers were even higher, reaching 80 to 84 per cent of women.

Many of the women in the study represented mild cases of sleep apnoea.

"How important is the mild sleep apnoea, we don’t know,” said Dr Karl Franklin, the lead author of the study and a professor at Umea University in Sweden.

Terry Young, professor in the School of Medicine and Public Health at the University of Wisconsin, said mild sleep apnoea is important to pay attention to.

"We see that it doesn’t go away and it gets worse,” she said.
One recent study also found that women who have sleep apnoea are more likely to develop memory problems and dementia.

Researchers selected 400 women between the ages of 20 and 70 from a larger population sample of
10,000, and asked them to sleep overnight at home with sensors attached to their bodies.

The study found that apnoea became more common in the older age groups and among women aged 20-44, one quarter had the disorder, compared to 56 per cent of women aged 45-54 and 75 per cent of women aged 55-70.

Severe sleep apnoea, which involves more than 30 breathing disruptions per hour, was far less common. Just 4.6 per cent of women 45-54 and 14 per cent of women 55-70 had severe cases.

Among women of all ages with hypertension, 14 per cent had severe sleep apnoea, and among women who were obese, 19 per cent had severe apnoea.

PTI

http://zeenews.india.com/news/health/diseases/half-of-women-may-have-sleep-apnoea-study_18733.html

42. Blood Pressure Pills could cause Appendicitis

Last Updated: Sunday, September 09, 2012

London: Intake of blood pressure pills could increase the risk of potentially deadly appendicitis by up to 63 percent, a new study has found.

Types of blood pressure pill like ACE inhibitors and ARBs raised the risk considerably in millions of people.

The two types can cause swelling in the bowel which inflames the appendix a vestigial finger-like pouch connected to the large intestine, `The Sun` reported.

When this occurs, it must be removed within hours or a deadly infection can set in. Around 300,000 men and women were studied at the Beth Deaconess Hospital, Boston, US.

Researchers discovered ACEs and ARBs appeared to increase the chance of appendix trouble by 36 to 63 per cent. Generic drug names for ACEs include ramipril, lisinopril and perindopril. ARBs include telmisartan, losartan and candesartan, the paper reported.

None of the other blood pressure tablets, like beta-blockers or calcium-channel blockers, had the same effect.

The National Health Service (NHS) in UK issues more than 50 million prescriptions for the pills each year. The drugs work by keeping the arteries open, boosting blood flow.

"It`s vital people continue to take their medication and discuss their individual risk, if any, with their doctor," the British Heart Foundation said.

PTI

43. Now, a Technique to regularise Abnormal Heartbeats

September 09, 2012

Washington: Scientists have now discovered a technique to regularise abnormal heartbeats.

A new freezing technology, called cryoablation, has shown promising results in normalising heartbeats after being tried out at Baylor Jack and Jane Hamilton Heart and Vascular Hospital.

Some 2.5 million Americans alone suffer from abnormal heartbeats or atrial fibrillation, which causes deadly strokes.

"It appears the major complication rate is lower with cryoablation, and patients seem to tolerate it better," said Manish Assar, cardiac electrophysiologist at the Baylor Hospital who conducted the procedure.

Currently, one of the several methods to regularise heartbeats is catheter ablation, a minimally invasive surgical option, which uses heat technology to treat the problem at the source, according to a Baylor statement.

A catheter is a long, thin, plastic-coated wire with several metal contacts on it - is guided into the heart after the physician has determined the type of arrhythmia (abnormal heart rate and rhythm).

Its most common side effects are those encountered with any IV insertion, including bleeding at the site when the catheter is removed, infection, blood clot formation within the vessel, and bleeding under the skin with formation of a hematoma (collection of blood).

Irregular beats involving the heart often obscure the threat to the brain. Their symptoms are shortness of breath, fatigue, chest pain, and dizziness or light-headedness. Irregular beats could be instrumental in the formation of blood clots in the heart, which break off and travel to the brain, blocking major vessels, resulting in a stroke.

"Atrial fibrillation is responsible for 15 to 20 percent of strokes," said Assar.

"The strokes that are a result of atrial fibrillation are large and have higher mortality than other strokes and higher rates of serious disability than other strokes."

"One of the biggest misconceptions about atrial fibrillation that I hear from patients is that if they can’t feel it, they don’t have it," said Assar.

"But the diagnosis is made through an EKG (ECG), and if the EKG says they have atrial fibrillation, they have it."

While many patients exhibit no symptoms that was not the case for Doug Gerber.
"Over time my heartbeat had become irregular. It would race to over 150 or slow down to under 50," he explained.

"It would pound so hard that I could see it beating through my shirt."

After attempting to control his erratic beats though medication, Gerber sought a more permanent solution, which he received at Baylor.

"My electrophysiologist understood exactly what was happening and recommended cryoablation," he said. Since the procedure, Gerber and his family have been able to look to the future without worrying about his heart.

Atrial fibrillation can strike at any age, but it is most prevalent in the elderly. No matter how old a patient is or whether or not they exhibit any symptoms, atrial fibrillation can lead to other serious health problems.

IANS


**44. Proteins` Absence causes Diabetes, Rheumatoid Arthritis**

September 10, 2012

Sydney: The absence of related protein molecules, Puma and Bin, prompts immune cells to turn against human organs they are meant to protect and cause type-1 diabetes and rheumatoid arthritis, known as autoimmune diseases.

Daniel Gray and colleagues from the Walter and Eliza Hall Institute`s Molecular Genetics of Cancer division and the University of Ballarat, have discovered that these pair of protein molecules work together to kill so-called `self-reactive` immune cells that are programmed to attack the body`s own organs.

Autoimmune diseases, such as type-1 diabetes, rheumatoid arthritis, inflammatory bowel disease and multiple sclerosis, develop when immune cells launch an attack on the body`s own cells, destroying important body organs or structures, the journal "Immunity" reports.

Puma and Bim are so-called `BH3-only` proteins that make cells die by a process called apoptosis or self death. Defects in apoptosis proteins have been linked to many human diseases, including cancer and neurodegenerative disorders, according to an Eliza Hall statement.

Gray said one way the body protects itself against autoimmune disease is by forcing most self-reactive immune cells to die during their development. "If any self-reactive cells manage to reach maturity, the body normally has a second safeguard of switching these potentially dangerous cells
into an inactive state, preventing them from causing autoimmune disease," he said.

Gray is now collaborating with researchers who have identified human gene defects linked to the development of autoimmune conditions.

"We now know that self-reactive cell death is an important protection against autoimmunity," Gray said. "The next stage of our work is to discover whether defects in the cell death process cooperate with other factors to cause human autoimmune disease."

IANS

45. Pill to `Block` Arthritis comes closer to Reality

September 10, 2012

London: Scientists have come closer to developing a potent pain-busting pill that could revolutionise treatment for arthritis with the discovery of a “master molecule” that acts as a messenger, helping fuel cells at the site of inflammation.

The protein GM-CSF is unique to arthritis and plays a role in the defective immune system response that leads to the disorder.

Now, experts believe that blocking the action of the vital protein could lead to a new treatment for the painful inflammatory disease.

Professor John Hamilton who led the research at the University of Melbourne in Australia, said that not only can blocking GM-CSF, which is also known as Leukine, suppress the actual disease, it can also reduce pain in sufferers.

ANI

46. Avoid Early Morning Sports on Empty Stomach

DPA
Cologne, September 10, 2012
Those who wake up to do early morning sports should also prepare their bodies so that the morning sweat is also effective. About 20 minutes before starting, individuals should drink a large glass of lukewarm water.

Professor Ingo Froboese from the Centre for Health Germany Sport University in Cologne also said a banana helps the body as it does not strain the body much and supplies energy.

Early morning activity can be effective in losing weight but only if carbohydrates are present. “Many believe early morning sports goes right at the local fat deposits because the sugar reserves are used overnight and the replenishment is not there,” said Froboese.

“Fats are only burned in the presence of carbohydrates. In addition, untrained beginners cannot immediately burn off their fats.

The fat burning process has to build up.” Froboese added. That’s why it’s important to have enough carbohydrates in your body before you run.

The experts said you should never run on an empty stomach. Not only could the energy supply be too low but the inner organs could also become irritated through the unusual strain, which is only intensified with the lack of nourishment. Dizziness and perception disorders are also possible. That mainly happens when the fluid reserves are empty.

Froboese said it’s best to plan two to two-and-a-half hours for the morning sports and subsequent rest and breakfast.

http://www.thehindu.com/health/fitness/article3881222.ece?homepage=true

47. What is Sleep Apnoea? (Sleep Apnea)

Obstructive Sleep Apnoea (OSA) is defined as the cessation of airflow during sleep preventing air from entering the lungs caused by an obstruction. These periods of 'stopping breathing' only become clinically significant if the cessation lasts for more than 10 seconds each time and occur more than 10 times every hour. OSA only happens during sleep, as it is a lack of muscle tone in your upper airway that causes the airway to collapse. During the day we have sufficient muscle tone to keep the airway open allowing for normal breathing. When you experience an episode of apnoea during sleep your brain will automatically wake you up, usually with a very loud snore or snort, in order to breathe again. People with OSA will experience these wakening episodes many times during the night and consequently feel very sleepy during the day: they have an airway that is more likely to collapse than normal.

How Do I Know I Have Sleep Apnoea?

People with sleep apnoea may complain of excessive daytime sleepiness often with irritability or restlessness. But it is normally the bed partner, family or friends who notice the symptoms first. Sufferers may experience some of the following:

- Extremely loud heavy snoring, often interrupted by pauses and gasps
- Excessive daytime sleepiness, e.g., falling asleep at work, whilst driving, during conversation or when watching TV. (This should not be confused with excessive tiredness with which we all suffer from time to time)
- Irritability, short temper
- Morning headaches
- Forgetfulness
- Changes in mood or behaviour
- Anxiety or depression
- Decreased interest in sex

Remember, not everyone who has these symptoms will necessarily have sleep apnoea. We possibly all suffer from these symptoms from time to time but people with sleep apnoea demonstrate some or all of these symptoms all the time.

**Diagnosing Sleep Apnoea**

OSA can range from very mild to very severe. The severity is often established using the apnoea/hypopnoea index (AHI), which is the number of apnoeas plus the number of hypopnoeas per hour of sleep - (hypopnoea being reduction in airflow). An AHI of less than 10 is not likely to be associated with clinical problems. To determine whether you are suffering from sleep apnoea you must first undergo a specialist 'sleep study'. This will usually involve a night in hospital where equipment will be used to monitor the quality of your sleep. The results will enable a specialist to decide on your best course of treatment. The ultimate investigation is polysomnography, which will include:

- Electro-encephalography (EEG) - brain wave monitoring
- Electromyography (EMG) - muscle tone monitoring
- Recording thoracic-abdominal movements - chest and abdomen movements
- Recording oro-nasal airflow - mouth and nose airflow
- Pulse oximetry - heart rate and blood oxygen level monitoring
- Electrocardiography (ECG) - heart monitoring
- Sound and video recording

This is a very expensive investigation, with few centres able to offer it routinely for all suspected sleep apnoea patients. A 'mini' sleep study is more usual, consisting of pulse oximetry and nursing observation. Home sleep study is becoming more popular.

**Treating Sleep Apnoea**

There are several forms of treatment for sleep apnoea. In mild and moderate cases weight loss and the use of mandibular advancement devices can be wholly successful. In moderate and severe cases
mandibular advancement device or nasal continuous positive airway pressure (CPAP) are normally prescribed. CPAP is the gold standard treatment for OSA.

Central & Mixed Sleep Apnoea

OSA is the commonest form of sleep apnoea, (about 4% of men and 2% of women) but there is also a condition called Central Sleep Apnoea (CSA). This is a condition when the brain does not send the right signals to tell you to breathe when you are asleep. In other words the brain 'forgets' to make you breathe. It can also be associated with weakness of the breathing muscles. The assessment for CSA is often more complicated than for OSA and the treatment has to be carefully matched to the patient's requirements. There is also a condition called Mixed Sleep Apnoea that is a combination of both obstructive and central sleep apnoea.

http://www.britishsnoring.co.uk/snoring_&_sleep_apnoea/what_is_sleep_apnoea.php

48. Insomnia?

Insomnia is trouble falling asleep or staying asleep through the night.

http://en.wikipedia.org/wiki/Insomnia

Insomnia, or sleeplessness, is an individual's reported sleeping difficulties. "Insomnia" is derived from the Latin word "Somnus", the name of the Roman god of sleep, with the incorporation of the prefix "in-" to add contradiction. While the term is sometimes used in sleep literature to describe a disorder demonstrated by polysomnographic evidence of disturbed sleep, insomnia is often defined as a positive response to either of two questions: "Do you experience difficulty sleeping?" or "Do you have difficulty falling or staying asleep?"

http://www.well.com/~mick/insomnia/insomnia.31.html

Some New Suggestions from Readers who have found these Remedies Useful for their Own Insomnia:

South, Not North

"I suggest you amend the tip on "sleeping with the head pointing North". It has long been known in India that sleeping this way is damaging to mind and body, and that burying the dead with the head pointing northward makes the body decay more quickly. The premise is that the body can be seen as a large magnet, with the head as the North Pole and the feet as the South Pole. Since unlike poles attract, it is best to have the feet (South Pole) facing North. This results in minimal blood circulation and low activity in the brain, and therefore more restful sleep."- Ron

Short Walk before Bed
Reader R.G. suggests taking a short walk before bed—assuming you live in an area where that's perfectly safe. He finds the light exercise often helps him get to sleep.

http://www.well.com/~mick/insomnia/insomnia.20.html

Get Up Earlier in the Morning

At least try this when you're trying to set up your new regular bedtime routine. As much as you may hate getting up one-half hour earlier (or even more) than you really have to, you'll be that much more tired at night and more apt to get to sleep. Once you and your body have the confidence that you can get to sleep when you want at night, you can go back to your preferred wake-up-in-the-morning time.

http://www.well.com/~mick/insomnia/