

10 things to know about sleep as the clocks go back

How much do we know about sleep and its impact on our lives, from our health and mood, to how long we'll live?

1. We're told to get our eight hours

We often hear that we should all be getting eight hours' sleep a night. Organisations from the NHS to the US National Sleep Foundation recommend it. But where does this advice come from?

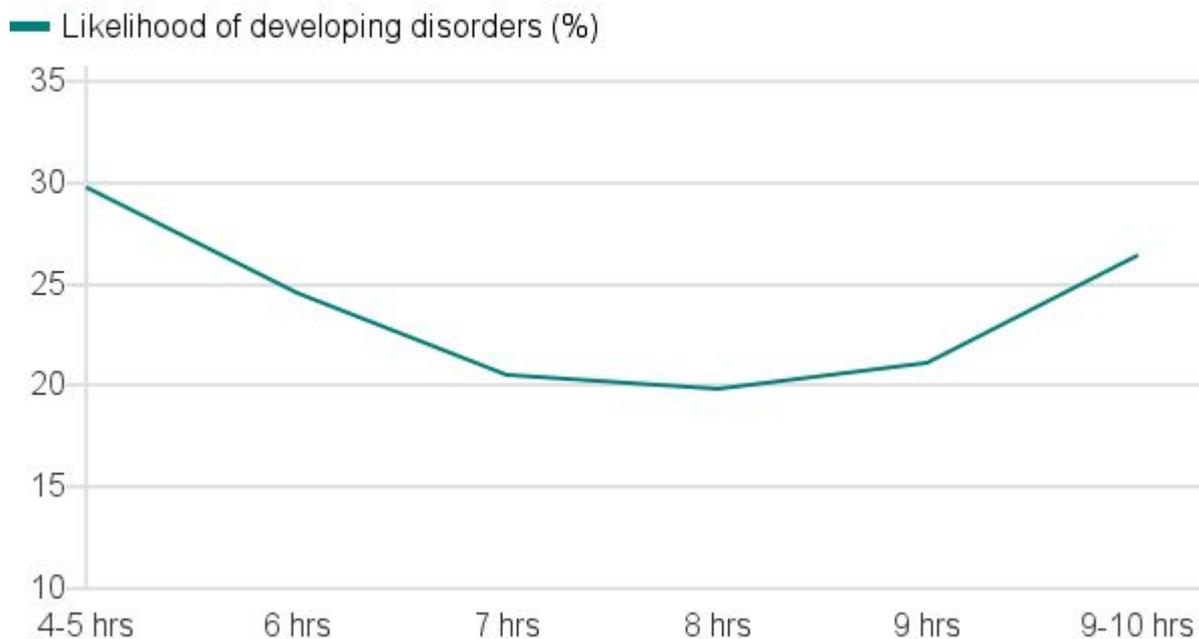
Studies carried out around the world, looking at how often diseases occur in different groups of people across a population, have come to the same conclusion: both short sleepers and long sleepers are more likely to have a range of diseases, and to live shorter lives.

But it's hard to tell whether it is short sleep that is causing disease or whether it is a symptom of a less healthy lifestyle.

Short sleepers are generally defined as those who regularly get less than six hours' sleep and long sleepers generally more than nine or 10 hours' a night.

How many hours should you sleep?

Hours slept vs likelihood of developing disease



Source: Sleep Research Society

BBC

Pre-puberty, children are recommended to get as much as 11 hours' sleep a night, however, and up to 18 hours a day for newborn babies. Teenagers should sleep for up to 10 hours a night.

Shane O'Mara, professor of experimental brain research at Trinity College Dublin, says that, while it's difficult to tell whether poor sleep is a cause or a symptom of poor health, these relationships feed off each other.

For example, people who are less fit exercise less, which leads people to sleep badly, become exhausted and less likely to exercise, and so on.

We do know that chronic sleep deprivation – that is, under-sleeping by an hour or two a night over a period of time – has been linked time and again by scientists to poor health outcomes: you don't have to go for days without sleep to suffer these negative effects.

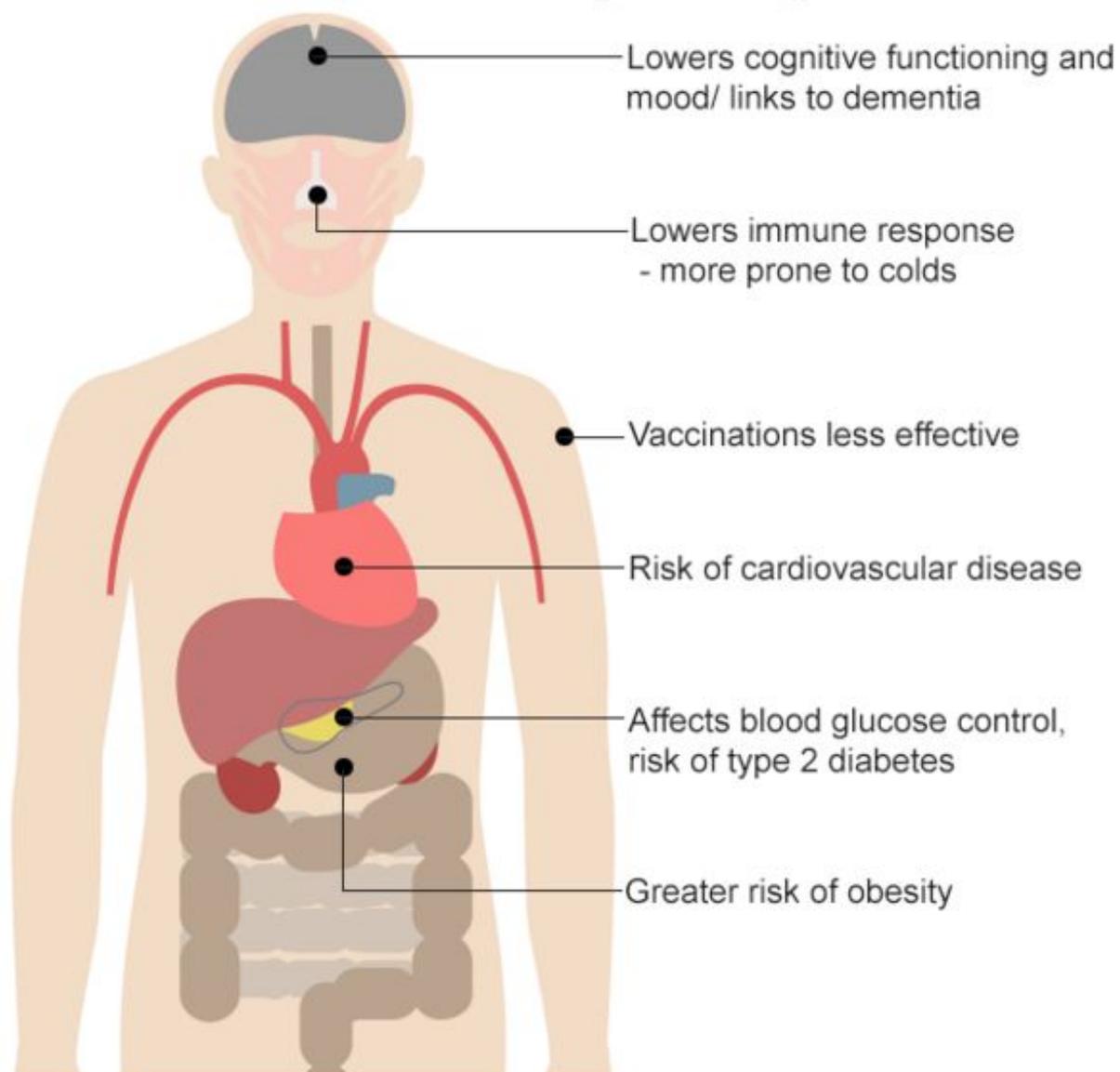
▪ **How much can an extra hour's sleep change you?**

2. What happens in your body when you don't sleep enough?

Poor sleep has been linked to a whole range of disorders.

A review of 153 studies with a total of more than five million participants found short sleep was significantly associated with diabetes, high blood pressure, cardiovascular disease, coronary heart disease and obesity.

How lack of sleep can affect your body



Source: BBC

BBC

Studies have shown that depriving people of enough sleep for only a few nights in a row can be enough to put healthy adults into a pre-diabetic state. These moderate levels of sleep

deprivation damaged their bodies' ability to control blood glucose levels.

Vaccines are less effective when we are sleep deprived, and sleep deprivation suppresses our immune system making us more prone to infection.

One study found participants who had fewer than seven hours of sleep were almost three times more likely to develop a cold than those who slept for seven hours or more.

People who don't sleep enough also appear to produce too much of the hormone ghrelin, associated with feeling hungry, and not enough of the hormone leptin, associated with feeling full, which may contribute to their risk of obesity.

There are also links to brain function and even in the long term to dementia.

Prof O'Mara explains that toxic debris builds up in your brain during the course of the day and waste is drained from the body during sleep. If you don't sleep enough, you end up in a mildly concussed state, he says.

The impact of sleeping too much is less understood, but we do know it is linked to poorer health including a higher risk of cognitive decline in older adults.

[Source- BBC]



List Of Drugs Contraindicated in Pregnancy

The rule about taking medicines during pregnancy is simple: Always ask your doctor first. That includes questions about prescription and over-the-counter (OTC) drugs. You should definitely not take some medicines. For others – the yellow flags – your doctor may need to weigh the risks and benefits to you and your baby. Here is a list of drugs contraindicated in pregnancy and the side effects which occur due to using these medications:

(1) NSAIDS (Asprine, Diclofenac, Ibuprofen, Indomethacine... etc) during 3rd trimester. May has effects on the fetal cardiovascular system (closure of the ductus arteriosus).

(2) Statins (Atrovastatine, Simvastatine, Levostatine... etc). Cholesterol is needed for fetal growth and its reduction by statins could harm the fetus.

(3) Warfarin:- Causes multiple birth defects.

(4) Testosterone:- Can cause birth defects.

(5) Misoprostol:- Miscarriage.

(6) Sulfamethoxazole/trimethoprim (Bactrim) during 3rd trimester. May increase bilirubin levels leading to kernicterus.

(7) Nitroimidazole, (Metronidazole and Tinidazole) during 1st trimester.

(8) Griseofulvin:- May increased risk of spontaneous abortion.

(9) Methotrexate:- Causes cleft palate along with multiple defects.

(10) Estradiol:- Urogenital abnormalities in offspring that manifest later in life. May cause uterine cervix, vaginal and testicular cancer have developed later in life in offspring.

(11) Thalidomide:- Seal like limbs and other defects.

(12) Clomiphene citrate:- Can cause birth defects.

(13) Medroxyprogesterone acetate:- Can cause birth defects.

(14) Vitamin A and its derivatives:- Birth defects, miscarriage.

(15) Danazol:- Causes malformations in sex organs of female fetus.

(16) Finasteride:- Even pregnant women should not handle broken or crushed tablets since it can get absorbed through the skin and affect the sexorgan development of the male fetus.

(17) Tetracyclines:- Get deposited in fetal bones and retard their growth, also affect teeth causing them to be discolored and deformed.

(18) Chloramphenicol:- Gray baby syndrome.

(19) Isoniazid:- Neurophy and seizures in fetus, liver damage in mother.

(20) Sodium Valproate:- Defects of the nervous system.

(21) ACE inhibitors (Enalapril, Captopril, Lisinopril...etc):- Growth retardation, birth defects, fetal death.

(22) Lithium:- Affects fetal thyroid, heart beside causing other abnormalities.

(23) Phenytoin:- Cleft lip/ palate along with other deformities.

(24) Anti convulsants:- Trimethadione, Valproic acid, Carbamazepine – Multiple birth defects.

(25) Androgens:- Multiple defects.list of drugs contraindicated in pregnancy.

FDA categorization of drugs in pregnancy.

Category A; Adequate and well-controlled studies have failed to demonstrate a risk to the fetus in the first trimester of pregnancy (and there is no evidence of risk in later trimesters).

Category B; Animal reproduction studies have failed to demonstrate a risk to the fetus and there are no adequate and well-controlled studies in pregnant women.

Category C; Animal reproduction studies have shown an adverse effect on the fetus and there are no adequate and well-controlled studies in humans, but potential benefits may warrant use of the drug in pregnant women despite potential risks.

Category D; There is positive evidence of human fetal risk based on adverse reaction data from investigational or marketing experience or studies in humans, but potential benefits may warrant use of the drug in pregnant women despite potential risks.

Category X; Studies in animals or humans have demonstrated fetal abnormalities and/or there is positive evidence of human fetal risk based on adverse reaction data from investigational or marketing experience, and the risks involved in use of the drug in pregnant women clearly outweigh potential benefits.

Who is A Doctor "Dr" ?



Pre Fix of “DR” by Physiotherapists - Every Professionals Demand for existence.

The primary question is what the thinking of our Government Authority/Health Ministry about Physiotherapists can be considered as experts and whether a physiotherapist could testify as an expert to offer evidences in the eyes of law?

Prefix ‘Dr’ is a professional status symbol, which is used to denote one who treats a patient or illness. Physiotherapists treats disease and Illness. In our Country circumstance People know that if anybody want to treat illness He/She Have to be Doctor(Dr) must. That’s mean if the Physiotherapist want to survive or Practice in Local area he/she need to introduce him as a Doctor(Dr) to the people. Because The villagers or people who living in the outside of city area they Does not have that level of knowledge that Physiotherapist is a Professional, they just know illness is treated by Doctor. Logically here the importance of Using Prefix “Dr” in the name of Physiotherapist become compulsory. Here the patient may be a human or an animal. The mention of name is followed by announcement of the area of operation i.e., veterinary, dental, medical or special classifications like specialists or physical therapist or not. More so mere word if we complain ‘Dr’ could not be status symbol but it is a profession, one’s dedication and outcome of results and finally the patient satisfaction which is the status symbol.

On the other hand Academic attainments of higher order i.e., PhD, D.Lit, or D.Sc. has the sanction to use the prefix 'Dr.' If we go through the history, Use of prefix 'Dr' besides high academics started only after Hippocrates. Hippocrates was recognized as physician of high repute, he was known & called as physician and there is no mention in records to address him as Dr. Hippocrates. Subsequently the subject of medicine, dentistry and surgery grew in dirth and stature. The professionals formed their associations and ultimately they resolved to use 'Dr.' as a prefix with their names and since then it is being followed as precedence

Here the suffix (Physiotherapist) or (PT) can devote their profession so as not to cause confusion with entity of physician, surgeon or dentist.

Only those who had done PhD and Doctorate in medicine or Surgery and or any other subject (need not be Medicine) are allowed address them as "Dr". It is by resolution and practice prefix of "Dr" has become symbol of practice status and not by any law. We need to clearly understand the difference between "Doctor" and "Doctorate". As per oxford dictionary and other standard International Dictionaries the title "Dr" is addressed for "Doctorate" only. It further states that Doctor is "one who treats patient". As professional who has studied 5 years on Graduate program Physiotherapists are skilled and trained to treat patients.

All stated facts are derived from tested norms hence the study is purely based on scientific established facts. The implementation of the facts in practice is purely a state of the art. Therefore it is a science of art. The law recognizes only the facts. The review of their curriculum will explain that physiotherapy is not based on conjectures and hypothesis.

This issue of prefixing "Dr" and introduce as Doctor came during the period when Dentist where pre fixing "Dr", similar objection/resistance shown by Medical Professionals. Now we all know Dentists are not objected by medical Practitioners for prefixing "Dr".

It will be surprising to note that traditional practitioners and rural practitioner with not even studied class 8 or 10 are prefixing "Dr" and Medical practitioners do not object this. Village herbal practitioners do prefix "Dr" which not objected by Medical Practitioners, Where as Physiotherapists study 5 Years Course and they are objected for prefixing "Dr". We also would like to quote that Alternate Medicine trained person with a course period of one year or more from unknown setup prefixing 'DR' and this not objected by Medical professionals.

No a days a huge number of Community Health Care Provider (CHCP) who r just S.S.C Pass using prefix "Dr" , it is also horrible if everyone know that CHCP are only one month Trained on Medicine but they are Giving 25 or More types of drug including Antibiotic. But Physiotherapists who do 5 years Academic program as specialist of this field is objected pre fix 'DR' which is a clear injustice.

Beyond this one most interesting part is, Principal post teaching posts in Government College of Physiotherapy (like Professors, Asst Professors, Lecturer) is filled by Medical Practitioners called "Physiatrist" (Physical Medicine Specialists). When they ("Physiatrist") consider them equal to Physiotherapists in Government institute of Physiotherapy and occupy the post of Physiotherapists which is not objected by State Medical Authorities, Universities and Medical Association, what is wrong in Physiotherapists prefix as "Dr". Why this dual stand by medical practitioners and Medical Association.

"Write for Democracy –Write for Existance"

Faysal Ahammed



Scientists Discover a New Organ in the Human Body

Scientists recently [discovered what they are calling a new human organ](#) that exists in the digestive system.

Named the mesentery, the organ was previously thought to consist of fragmented and disparate structures. Researchers found, however, that it is one continuous organ and outlined evidence to classify it as such in a review published in [The Lancet Gastroenterology & Hepatology](#).

“In the paper, which has been peer reviewed and assessed, we are now saying we have an organ in the body which hasn’t been acknowledged as such to date,” J. Calvin Coffey, a researcher from the University Hospital Limerick in Ireland, who first made the discovery, [said in a release](#).

The [mesentery](#) is a double fold of the peritoneum, which is the lining of the abdominal cavity. It connects the intestine to the abdomen.

While the mesentery’s specific function is still unknown, studying it as an organ could lead to new discoveries about its impact on abdominal diseases.

“When we approach it like every other organ ... we can categorize abdominal disease in terms of this organ,” Coffey said.



STRESS : DANGEROUS ENEMY FOR THE BRAIN.

Stress can be a dangerous enemy for the brain. In fact, it can have serious effects on your brain's ability to operate properly. While stress appears to have originated from our instinctual "fight or flight" response, which is the instinct that decides if an animal should fight something trying to kill it or run away, we don't have to deal with that much anymore in everyday life, so it has adapted in different ways.

"Primates are super smart and organized just enough to devote their free time to being miserable to each other and stressing each other out," Robert Sapolsky, a famous Stanford University neuroscientist, said during an interview in 2007. "But if you get chronically, psychosocially stressed, you're going to compromise your health. So, essentially, we've evolved to be smart enough to make ourselves sick."

The way stress affects the brain directly and how that changes over time is complicated, but there is a growing body of

research aimed at understanding just that. A Yale study from 2012 found stress can shrink the brain in the areas that control emotions and metabolism.

The researchers believe prolonged stress is actually more effective at causing this shrinking than specific traumatic events. They believe prolonged stress can cause a person's ability to avoid things like substance abuse and risky behavior to decrease.

Another study from the University of California, Berkeley found that chronic stress, even at relatively low levels, can make a person prone to mental illness later in life. Specifically, stress damages the integrity of the hippocampus, which is the part of the brain that deals with memory and emotions.

Hormones like cortisol and other biological reactions created by stress essentially disrupt the balance of how much white and grey matter the brain is creating, which affects how the brain operates. The hippocampus is believed to be strongly connected with emotional disorders and sometimes serious psychological problems.

A lot of the stress people deal with today is completely different from stresses people dealt with in the past, which can make it difficult to keep up with how we're morphing our brains. Bruce McEwen, a leading neuroscientist at Rockefeller University, told ATTN: that "pace of life for some, 24/7 email ... financial concerns, job instability, worry about health and access to healthcare, being a caregiver [possibly] for an autistic child or an Alzheimer patient, commuting and jet lag, poor sleep, lack of physical activity, social isolation, social media (especially among young people) causing anxiety, sleep disruption, noise and pollution, [and] living in a dangerous neighborhood" can ALL be causes of serious stress in the modern world.



Anti-Ulcerants: the Driving Force of the Pharma Market of Bangladesh

Bangladesh is a densely populated poor country in South Asia with significant achievement in health related Millennium Development Goals (MDGs) with noticeable Gross Domestic Product (GDP) growth. The density of its population is about 1063 per square kilometer and total population is about 160 million; and its health sector is advancing gradually.

Pharmaceutical industry is one of the progressive sectors, which contributes 1% to the country's GDP and is the third largest industry in terms of contribution to the revenue. The current market size is about 14 billion with having almost persistently double-digit growth. There are 267 licensed pharmaceutical companies and the market is almost self-sufficient in meeting local demand as 97% of the drugs are manufactured locally.

Anti-Ulcerants are significantly dominating the huge volume sells with marked impact on company revenue. Recent tradition shows, anti-ulcerants as a therapeutic class tops the whole market with having about 15% of the total market share. Moreover, brand wise ranking based on sales volume shows among the top 25 brands, there are 11 anti-ulcerant brands with the

top 4 anti-ulcerant brands (Table 1).

Pharmaceuticals sales trends in recent past years also maintained the same picture which alerts author to notice the issue so that, it can be addressed properly in regards to the pharmaceutical marketing strategy build up and public health policy formulation; with consideration of the prescribing habit of the physicians as well as the awareness of the population regarding the self consumption of the anti ulcerant medications.

Table 1: Top Anti-Ulcerant brands with their rank in pharmaceutical sells in Bangladesh.

Sl No.	Brand Name	Generic Name
1.	SECL0	Omeprazole 1
2.	MAXPRO	Esomeprazole 2
3.	SERGEL	Esomeprazole 3
4.	PANTONIX	Pantoprazole 4
5.	LOSECTIL	Omeprazole 6
6.	NEOTACK	Ranitidine 9
7.	FINIX	Rabeprazole 11
8.	EXIUM	Esomeprazole 13
9.	NEOCEPTIN R	Ranitidine 20
10.	XELDRIN	Omeprazole 23
11.	ENTACYD PLUS	Antacid 25



Women do have better memories than men, says study

Women have better memories than men. In a study published in the journal *Menopause*, women aged 45-55 years performed better in all memory measures, despite experiencing a decline around the menopause.

About 75 percent of people experience memory problems as they get older. Causes include **dementia** and **Alzheimer's disease** (AD). Women are more likely to be affected by AD and dementia than men.

As women reach **menopause**, they also struggle with forgetfulness and "brain fog," and for some, this memory depletion continues after menopause. Some researchers have found that women have difficulty with verbal fluency at these times, too.

Nevertheless, women with healthy aging brains continue to have an edge over their male counterparts when it comes to memory function, even in midlife and older age.

Indeed, some studies suggest that, even from childhood, women outperform men in memory tasks. This is especially true of verbal memory. The difference becomes more significant just after **puberty**, and it continues into adulthood.

Research has suggested that verbal and associative aspects of memory are more likely to be impaired than nonverbal function

as people get older.

It also seems that people who experience problems with verbal memory before the age of 50 years are more likely to face additional cognitive impairments after the age of 65 years.

How do hormones affect memory?

Researchers from Boston, MA, have been investigating how the menopause and levels of sex steroids might affect particular aspects of memory.

Neuroactive sex steroid hormones, including estradiol, are believed to affect learning and memory in women, and they may underlie sex differences in learning and memory performance.

Estradiol affects the structure and function of brain regions that relate to memory. As levels fluctuate during the menstrual cycle, verbal working memory performance can change, too.

To find out more, the team decided to investigate memory function as it relates to estradiol levels in early midlife.

They hypothesized that sex differences, hormones, and reproductive status might correlate with changes in memory performance.

The researchers also wanted to know which memory domains are most likely to be impaired in menopausal women and whether the level of memory function in early midlife might predict the future onset of AD, based on family history.

Despite a dip at menopause, women outperform men in memory tests

The participants were 212 men and women aged between 45-55 years.

Challenging memory tests were used to assess episodic memory,

executive function, and semantic processing. Cognitive testing was used to measure verbal intelligence.

The team compared performance between men and women, and also between women at different stages, before, during, and after menopause.

Results showed that women outperformed men, and that women who were premenopausal or perimenopausal scored better than women who were postmenopausal. Performance was linked to estradiol levels, regardless of chronological age.

As estradiol declines during menopause, women find it harder to learn something for the first time and to retrieve information. However, they continue to maintain and consolidate stored memories effectively. The findings suggest that different parts of the brain are affected.

Previous studies have shown that women with a longer reproductive period, and therefore greater exposure to estrogens, have better immediate and delayed verbal memory in mid- to late-life.

A fall in estradiol levels during menopause has also been found to relate directly to changes in brain activity in the hippocampus, which plays a role in memory function.

Is there a link with Alzheimer's?

The parts that are affected appear to be different from those affected by early AD, and the team found no indication of a link between menopausal brain deficits and AD.

“Brain fog” and forgetfulness have sometimes been attributed to job **stress** and the need to multitask, rather than menopausal transition.

The current study confirms other findings suggesting that menopause, and more specifically, estradiol, may play a role.

The researchers conclude that the cognitive changes that occur during menopause are probably related to hormonal processes affecting frontal executive neural networks, rather than temporolimbic dysfunction, which is implicated in AD.

One limitation of the study is that it is cross-sectional rather than longitudinal. A study over time would give a fuller picture.

Other potential causes of memory problems, say the authors, could be **estrogen** from sources other than estradiol, a result of psychosocial pressures, or symptoms of some other passing condition.

The authors conclude that women's memories are better than men's in early midlife, and when women's memories start to decline, this is due to reproductive status rather than age. The loss of ovarian estradiol plays a role.

[Internet]



HEAT STROKE

The most serious form of heat injury and is considered a medical emergency. If you suspect that someone has heat stroke – also known as sunstroke – call your physician immediately and give first aid until paramedics arrive. Heat stroke can

kill or cause damage to the brain and other internal organs. Although heat stroke mainly affects people over age 50, it also takes a toll on healthy young athletes. Heat stroke often occurs as a progression from milder heat-related illnesses such as heat cramps, heat syncope (fainting), and heat exhaustion. But it can strike even if you have no previous signs of heat injury. Heat stroke results from prolonged exposure to high temperatures – usually in combination with dehydration – which leads to failure of the body's temperature control system. The medical definition of heat stroke is a core body temperature greater than 104 degrees Fahrenheit, with complications involving the central nervous system that occur after exposure to high temperatures. Other common symptoms include nausea, seizures, confusion, disorientation, and sometimes loss of consciousness or coma.

Symptoms of Heat Stroke the hallmark symptom of heat stroke is a core body temperature above 104 degrees Fahrenheit. But fainting may be the first sign. Other symptoms may include: Throbbing headache Dizziness and light-headedness Lack of sweating despite the heat Red, hot, and dry skin Muscle weakness or cramps Nausea and vomiting Rapid heartbeat, which may be either strong or weak Rapid, shallow breathing Behavioral changes such as confusion, disorientation, or staggering Seizures Unconsciousness While waiting for the paramedics to arrive, initiate first aid .

Move the person to an air- conditioned environment – or at least a cool, shady area – and remove any unnecessary clothing. If possible, take the person's core body temperature and initiate first aid to cool it to 101 to 102 degrees Fahrenheit. (If no thermometers are available, don't hesitate to initiate first aid.) Try these cooling strategies: Fan air over the patient while wetting his or her skin with water from a sponge or garden hose. Apply ice packs to the patient's armpits, groin, neck, and back. Because these areas are rich with blood vessels close to the skin, cooling them may reduce

body temperature. Immerse the patient in a shower or tub of cool water. If the person is young and healthy and suffered heat stroke while exercising vigorously – what’s known as exertional heat stroke – you can use an ice bath to help cool the body.

Do not use ice for older patients, young children, patients with chronic illness, or anyone whose heat stroke occurred without vigorous exercise. Doing so can be dangerous. If emergency response is delayed, call the hospital emergency room for additional instructions.

Risk Factors for Heat Stroke Heat stroke is most likely to affect older people who live in apartments or homes lacking air conditioning or good airflow. Other high-risk groups include people of any age who don’t drink enough water, have chronic diseases, or who drink excessive amounts of alcohol. Heat stroke is strongly related to the heat index, which is a measurement of how hot you feel when the effects of relative humidity and air temperature are combined. A relative humidity of 60% or more hampers sweat evaporation, which hinders your body’s ability to cool itself.

The risk of heat-related illness dramatically increases when the heat index climbs to 90 degrees or more. So it’s important – especially during heat waves – to pay attention to the reported heat index, and also to remember that exposure to full sunshine can increase the reported heat index by 15 degrees. If you live in an urban area, you may be especially prone to develop heat stroke during a prolonged heat wave, particularly if there are stagnant atmospheric conditions and poor air quality.

In what is known as the “heat island effect,” asphalt and concrete store heat during the day and only gradually release it at night, resulting in higher nighttime temperatures. Other risk factors associated with heat-related illness include: Age. Infants and children up to age 4, and adults over age 65,

are particularly vulnerable because they adjust to heat more slowly than other people. Health conditions. These include heart, lung, or kidney disease, obesity or underweight, high blood pressure, diabetes, mental illness, sickle cell trait, alcoholism, sunburn, and any conditions that cause fever Medications. These include antihistamines, diet pills, diuretics, sedatives, tranquilizers, stimulants, seizure medications (anticonvulsants), heart and blood pressure medications such as beta-blockers and vasoconstrictors, and medications for psychiatric illnesses such as antidepressants and antipsychotics.

Illegal drugs such as cocaine and methamphetamine also are associated with increased risk of heat stroke. People with diabetes – who are at increased risk of emergency room visits, hospitalization, and death from heat-related illness – may be especially likely to underestimate their risk during heat waves, according to a recent study presented at the Endocrine Society's annual meeting by researchers from the Mayo Clinic in Arizona, the National Ocean and Atmospheric Administration, and the National Weather Service. Check with your doctor to see if your health conditions and medications are likely to affect your ability to cope with extreme heat and humidity. Preventing Heat Stroke When the heat index is high, it's best to stay in an air-conditioned environment. If you must go outdoors, you can prevent heat stroke by taking these steps: Wear lightweight, light-colored, loose-fitting clothing, and a wide-brimmed hat. Use a sunscreen with a sun protection factor (SPF) of 30 or more.

Drink extra fluids. To prevent dehydration, it's generally recommended to drink at least eight glasses of water, fruit juice, or vegetable juice per day. Because heat-related illness also can result from salt depletion, it may be advisable to substitute an electrolyte-rich sports drink for water during periods of extreme heat and humidity. Take additional precautions when exercising or working outdoors.

The general recommendation is to drink 24 ounces of fluid two hours before exercise, and consider adding another 8 ounces of water or sports drink right before exercise. During exercise, you should consume another 8 ounces of water every 20 minutes, even if you don't feel thirsty. Reschedule or cancel outdoor activity. If possible, shift your time outdoors to the coolest times of the day, either early morning or after sunset. Other strategies for preventing heat stroke include: Monitoring the color of your urine. Darker urine is a sign of dehydration.

Be sure to drink enough fluids to maintain very light-colored urine. Measuring your weight before and after physical activity. Monitoring lost water weight can help you determine how much fluid you need to drink. Avoid fluids containing caffeine or alcohol, because both substances can make you lose more fluids and worsen heat-related illness. Also, do not take salt tablets unless your doctor has told you to do so. The easiest and safest way to replace salt and other electrolytes during heat waves is to drink sports beverages or fruit juice. Check with your doctor before increasing liquid intake if you have epilepsy or heart, kidney, or liver disease; are on fluid-restricted diets; or have a problem with fluid retention.

If you live in an apartment or house without fans or air conditioning, try to spend at least two hours each day – preferably during the hottest part of the day – in an air-conditioned environment. At home, draw your curtains, shades, or blinds during the hottest part of the day, and open windows at night on two sides of your building to create cross-ventilation. If you're a senior who either can't afford to buy or run an air conditioner, check with your local Area Agency on Aging for programs that can assist you. One such program is the Low Income Home Energy Assistance Program (LIHEAP).



Infectious skin disorders of Children

Study revealed skin diseases accounts about (20-30)% of child illness. The skin of the children differs from that of the adult or at the developing stage & premature.

- Layers are thin,
- bonding between cells are loose,
- sebaceous & sweat glands are premature
- less oil & sebum secretion,
- sensations are not well developed
- immune or defense power is less.

That's why child's are prone to inflammatory, infectious or allergic skin diseases. Specially in hot & humid weather there is outbreak of measles, chicken pox, impetigo. These diseases are very infectious & contagious too.

Infectious skin disease of children may classify as follows.

Viral: chicken pox or varicella, measles, rubella or german measles, herpes simplex & zoster, warts, condylomata, mumps etc are from infection of virus.

Bacterial: Impetigo or summer boils, folliculitis, erysipelas, furuncle, carbuncle, leprosy, anthrax are of bacterial origin.

Parasitic: these diseases are parasitic origin such as scabies, pediculosis, miasis, trombiculities, lectulariasis etc.

Fungul: funguses are responsible for this group of diseases. These are candidiasis, erythrasma, Tinea versicolor, tinea capitis, tinia pedis etc.

Treatment:

As the skin of the children is very sensitive & needs urgent attention for treatment. Easily treated after finding the cause & proper diagnosis.

Prevention:

- keep children away from infected person;
- Always keep your children's garments clean & hygienic;
- Children should be rested in comparatively cool place;
- if sweats, clean & dry as early as possible;
- Most of the viral diseases can be prevented by vaccination.

Remember if infectious skin diseases of children are not treated timely & properly, it could be serious. Even complication arises from diseases may fatal.



Itching: A common & disgusting health problem

It is very difficult to find a person who didn't have the experience of itching in a lifetime. It is not a disease but the commonest manifestation as a symptom. *Itching is a skin tingling or irritation that force you to scratch in an area of your body.* The severity of itching varies according to the disease. It may affect in a focal or whole area of your body. There are hundreds of disease in which itching is a symptom. Other than dermatological disease, itching may be a manifestation of systemic diseases.

Diseases of skin

- Inflammatory skin diseases like atopic eczema & different type of dermatitis;
- Bacterial skin infection such as impetigo, cellulitis, folliculitis;
- Viral attack like chicken pox, measles, herpes etc;
- fungal or yeast infection such as tinea versicolor, tinea cruris, candidiasis;
- parasitic skin manifestations like scabies, head & body lice;
- allergic reactions from cosmetics, apparatus, food or other materials;
- diseases from climate change such as sunburn, prickly heat, in summer, xerosis or dry skin in winter;
- skin changes in senile person, menopause & pregnancy condition;
- some drug reaction & insect bites;
- Urticaria, psoriasis, ichthyosis, pemphigoid, lichen planus

liver disease

Itching is a symptom in some hepato-biliary disease, such as Jaundice, hepatitis A, B, C, D & E infection, liver

cirrohsis,alcoholic liver disease,Cholecystitis & cholelithiasis(Gall stone),bile duct obstuction.

Kidney disease

Some kidney diseases may accompany itching,like infection of kidney components,renal failure,diabetic nephropathy,end stage kidny disease.

Blood disorders

Itching may arises in some blood diseases such as, thalassemia, leukemia or blood cancer, polecythemia, hemolytic & sickle cell anaemia, lymphoma.

Beside above mentioned diseases,thyroid problem,diabetes,pancreatitis, scleroderma, sarcoidosis may be a cause of itching.

Treatment

Antihistamine drugs intake & use of emlloints like petrolium gelly, glycerin ,oils may help primarily at home.

After finding the cause of itching,treatment of that disease relieves itching.

Please remember one thing,itching may look simple complain but most often it is a symptom of complicated disease.It needs proper attention & treatment,otherwise it may threaten your life too.



Indonesia's universal health scheme: the largest national health insurance system of the world!

Healthcare system of **Indonesia** is rated as one of the poorest within Southeast Asia, far behind that of its neighbours Singapore, Thailand & Malaysia. Health care system of Indonesia encompasses government health services, NGOs and the private health sector. Primary health care system are organised in three tiers: on top is Community health centre (Puskesmas), followed by Sub-Centres on the second level, and Village-Level Integrated Posts at the third level. Primary health care systems are free to all citizens of the country. There are approximately 1 doctors per 5000 people (compared to two in Thailand and six in Malaysia) and 0.7 beds available in hospitals per 1000 citizens (compared with 3.3 beds per 1000 people in the UK and 13.7 in Japan). Distribution of hospitals and healthcare facilities are unequal, with urban areas home to more and higher quality health facilities, while remote rural areas are home to under-equipped & very poor quality hospitals. Lack of transportation, infrastructure, energy and isolation are the most common barriers to health sector development and services in remote areas. NGOs have historically been the ones to plug the gaps in healthcare provision. About 70% of the population depends on government

run hospitals.

An overhaul of Indonesia's health care system was long overdue, as it lagged behind many others in the region. In the past, most Indonesians relied on personal money or private insurance while those deemed living in poverty got free public health care – but this left millions stuck in the middle, too poor to afford care but not poor enough to qualify for government assistance! An estimated 60% of Indonesians, mainly state employees, low-income earners, and those with private coverage had some form of health insurance. There have been major changes to the Indonesian healthcare system in recent times. This is largely because just 2 year (August 2014) Indonesia enacted country-wide health insurance scheme that aimed to insure its entire citizen by 2019, what has quickly become the world's largest national health insurance system. The insurance scheme, [Jaminan Kesehatan Nasional](#) (JKN) is implemented by the social security agency Badan Penyelenggara Jaminan Sosial Kesehatan (BPJS). The scheme is being implemented as part of the government's efforts to direct some of the benefits of strong economic growth into improved welfare. Those in formal employment pay a premium equivalent to 5% of their salary, with 4% payable by employers and 1% payable by employees. Civil servants are automatically enrolled, private companies must sign up staff while the self-employed and those working in the informal sector are required to join themselves. Its mandatory for citizens to join the scheme, the premium of which ranges between \$2-\$7, in a tiered system of first, second and third-rate care depending on the contributions they choose to pay. The premium for the poorest (9-10%) is paid by the government. There are currently no punishments for people who fail to sign up, but when the system is fully rolled out in 2019, they will face fines.

Another reform aimed at improving healthcare in the short-term is to allow foreign companies to set up hospitals in Indonesia. These facilities will bring foreign expertise to

the region as well as modern equipment. It will help increase the quality of healthcare as well as the quantity of healthcare available. Whilst an increase in availability of private healthcare services will not directly solve the problems facing the public sector, the government will at least be able to use the private sector to provide public services until their own infrastructure can be built.

Under **JKN**, all citizens are now able to access a wide range of health services provided by public facilities, as well as services from private organizations that have opted to join the scheme as providers. JKN care aims to be comprehensive, covering treatment for everyday concerns such as flu through to open-heart surgery, dialysis and chemotherapy. Private insurance continues to play a role by providing for excess or additional coverage of services not included in JKN.

The reason for this reform was many folds. First and foremost, the government of Indonesia wanted to ensure healthcare as it is a constitutional right for all Indonesian people & to secure the health and wellbeing of the county's population by providing them with guaranteed access to medical facilities and treatment. Next, it was important to the government that Indonesians were comfortable spending their income and bolstering the economy. It is expected that spending on healthcare will increase by 12% a year and reach US\$46 billion a year by 2019.

Though the scheme has been criticized for being over-ambitious as the government has already began to run deficits from the program due to its responsibility to subsidize the premiums of nearly of the poor citizens, a lack of competency in administration, and a failure to address the need for improving healthcare infrastructure in remote areas, but JKN exceeded its target for enrolling members in its first year (registering 133.4 million members compared to a target of 121.6 million) and that, according to an independent survey, the customer satisfaction rate was 81%, awareness of JKN was

95%, and that complaints had been resolved within one and a half days on average. So far 78% of the country's population became covered within 2 years of inauguration of the scheme & it is expected that the entire population will be covered in 2019. While the JKN scheme is an improvement for some sections of Indonesian society, it still has a long way to go if it is to become truly universal by 2019.



Medical Representative in Bangladesh: a Job with Different Pattern

The pharmaceutical industry is one of the growing sectors of Bangladesh economy. It contributes 1% to the country's GDP and is the third largest industry regarding contribution to government revenue. The current market size is about 12,100 million with having almost persistently double-digit growth. The market is almost self-sufficient in meeting local demand as 97% of the drugs are manufactured locally and is exporting to 92 countries. There are 267 licensed pharmaceutical companies in Bangladesh for manufacturing the pharmaceutical products. The prescriptions of doctors principally drive the market, and company personnel tries to motivate doctors to prescribe their company brands by personal selling, clinical meetings, seminars, symposia, etc..

Medical sales representatives, commonly known as 'reps' are a strategic link between healthcare professionals and pharmaceutical companies. They promote the sale of the products manufactured by their employer companies. The products include medicines, prescription drugs and medical equipment, which are being promoted to a full range of professionals from pharmacists and nurses to general practitioners and hospital doctors. They work very tactfully to increase the awareness and use as well as sells of promoted products.

Recruitment

During recruitment, employers prefers science graduates with relaxation the criteria by experience and company ranking. After hiring, usually, companies train them to be presentable in regards to the company marketing policy, which is mostly dominated by marketing and human resource department. After the successful training period, reps are appointed in the vacant territory of the company, provided with sample carrying bag, motorbike, mobile handset and a SIM card. The graduates in the field of life sciences, pharmacy, medicine, nursing, and dentistry get extra attention during the appointment as a rep. A business or marketing degree may also be helpful, especially if accompanied by some knowledge of medical sales.

Daily work

Unlike the other jobs, reps are bound to pass a very busy life, and they have to perform the bi-phasic duty. Phase-1 starts at 8 am when they have to report their bosses for daily work plan as well as previous day sells and call performance for about half to one hour. Then, they move to their working institutional gate to convey greetings with their fixed physicians while they enter into their offices in the morning. After that, they prepare themselves adequately to make calls to the targeted physicians with targeted products by detailing

or presenting materials supplied by the marketing department of the company. During entering into the physician's chamber for making a call, most of the time, they have to satisfy the attendant of the physician, gatekeeper of the hospital, sister attending the physicians and others who have accessibility to the physicians to the extent of motivation.

Usually, morning shift ends around 2 pm with the completion of communications with the pharmacy man to ensure their persistent sells order adjacent to the institute. The second phase starts at 5 pm with reporting to the supervisor followed by taking sells orders from the pharmacy man. At this phase, they have play very crucial role to satisfy the order-giving persons as they have an immense role in selling their products. In Bangladesh pharmacy men play a significant role as they can routinely change the brand of the prescribed product so, they used to take tolls from the company people especially from the reps. Then, their responsibility is to make calls to their fixed doctors with prioritized brands in accordance to the physicians preferable time. Usually, this phase ends at about 11 pm. Regarding holiday, they usually get 1 or 2 leaves in a month as because they have to visit the weekly visiting physicians in the weekends. In Bangladesh, physicians have a tendency to run holiday chambers remote from their working institute and for this holiday chambers they can promote the prescription drugs immensely.

Overall Life

In Bangladesh, their life is not so smooth, and their job satisfaction is also not very high. They have to work with very strict sales target, which is often refreshed monthly and a constant push from the marketing department of the company. Nevertheless, they poor have their job security. If they can't reach the target, they are transferred to another section and sometimes may lose their job.

Their process of selling involves getting in touch with the potential customers and detecting their necessities. They do not sell products directly to buyers as the vendors do, rather

patients pay for prescription drugs, and physicians control their access. They persuade the physicians to prescribe particular drugs from their companies and ensure that they are following their guidelines. To keep the doctors motivated on their companies, they offer gifts adjusting with the rank, a number of regular patients and social status of the physicians; on behalf of the company marketing strategy. It is firmly believed that, increasing visits by medical representatives increase the prescription rate of a particular drug. They are trained well to assess physicians' personalities, drug preference, and practice styles. They remember the physicians' family life, professional interests, and important occasions to celebrate important occasions and thus keeping them motivated. Broadly, reps arrange appointments with doctors, pharmacists, and hospital medical teams, which include pre-arranged appointments or regular 'cold' calling: make presentations to physicians and pharmacists in the retail sector. They also organize CMEs, conferences for doctors and other medical staff; building and maintaining positive working relationships with medical staff and supporting administrative staff; keep detailed records of all contacts; reach (and if possible exceeding) annual sales targets; plan work schedules and weekly, monthly timetables; regularly attending company meetings. They have to keep themselves up to date with the latest clinical data supplied by the company, and interpret, present and discuss this data with health professionals during presentations. They also have to monitor competitor activity and competitors' products; maintain knowledge of new developments in the National Health Service (NHS), anticipate potential negative and positive impacts on the business and adapting strategy accordingly.

Benefits

The profession provides benefits to the reps in different angles such as monthly fixed salary, incentives for target achievements, yearly bonus, quarterly bonus, trips for the

achievers and other such monetary benefits that vary from a company to another company. The reps also get mobile allowances, transport allowances, and other such field work related benefits. Companies arrange regular training for the personal development of reps. Promotion to superior responsibility, salary and facility structure grossly vary from a company to another company. Many pharmaceutical companies are multinational, providing some opportunities to work abroad.

As the pharmaceutical companies hard regarding sales target achievement from the medical representatives without considering their personal life, medical representatives are not completely satisfied in most cases.

Medical reps have a significant role in the company growth, and they are working in a hyper-competitive market in Bangladesh with intense sales pressure, rare holiday, massive job insecurity and very little time to be with family.