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ASSE India – Newsletter Committee
Sandip Mukherjee

Message from the President's Desk....

July 25, 2017



Dear Colleagues,

Learning from experience is good. Utilizing the knowledge for improved performance and loss prevention is even better. Possibly we safety professionals are reminded of this often, whenever an incident, including a near-miss knocks on the door. We immediately realize and recount the possible set of actions which would have contributed to prevent it!

We need to see that all-round efforts for preventing recurrence get supported and strengthened while executive actions for prevention do progress in tandem at the workplaces. This must happen in alignment with regulatory requirements, with respect to past incidents, recognizing the "duty of care" for all concerned, including the leadership team.

Naturally for the line managers, relevance of studying and analyzing incident case studies is becoming of more and more significance owing to the enhanced importance on learning on prevention. Hence systematic archiving and indexing of case studies is assuming more importance. Well organized case studies suitably disseminated with the team, including crew members could be of immense help in improving productivity of the teams and prevention of incidents.

Safety professionals can play a key role in supporting the "Line team" to access and efficiently pick up the relevant case studies and take prompt preemptive actions for prevention through various avenues, including risk assessment and control.

We need to be really very active and effective in this area. Let us harness help from all sources in an efficient manner, including digitalization initiatives. We should be able to ensure that we make significant contribution in incident prevention, utilizing the learning from past and develop a clear roadmap for precautions for the future.

With best wishes and warm regards,

Krishna Nirmalya Sen (Ph.D, PE, FIE)

President

ASSE India Chapter

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Editor's Corner:

Dear Reader,

We are presenting the 41st Issue of ASSE India Chapter Newsletter.

Understanding in hazardous area classification is very important for the personnel working or exposing to the industries where toxic, flammable or explosive atmosphere prevails or may create similar atmosphere through chain reaction. Found a good introduction on this topic. Furnishing the same to create a better awareness.

Recently in month of June a grand PDC & exposition has been organized by ASSE at Denver. Several ASSE Members from India has participated in this program. Find a crispy report on this gala event.

Also the brief on forthcoming important days in health and safety calendar for the month of August and information related to lightening safety is furnished for ready reference along with health tips on controlling blood pressure. Do not skip your favorite quiz at the end of the newsletter.

In the eve of forthcoming 71st Indian Independence Day, I would like to dedicate this issue for those noble souls; dedicating their lives for building this amazing Nation.

Do keep on sending interesting articles on OH&S for publication. Happy reading.

Warm Regards to all our Readers,

Jai Hind

Sandip Mukherjee,

Chair – Newsletter (ASSE India Chapter)

An Introduction to Hazardous Area Classification Study

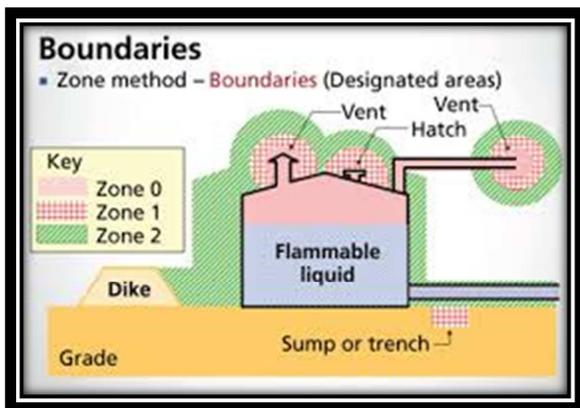
In European Countries its called ATEX Study or Zone Classification Study

Applicability

- Any facility which handle Liquids/Gases of **less than 65° C as Flash Point** be it a Storage or Transfer or Process are need to be covered under Hazardous Area Classification (HAC).
- Liquids/Gases with **Auto-Ignition Temperature of less than 450° C** need to be considered in HAC.
- Dust** with Conductive/ Explosive Flammable / violent properties need to be considered in HAC.
- Premises which are gone with changes like relocation of chemical raw material storage, addition of tank forms, process change, new chemical raw material, addition/change in HSD storage etc. shall go for HAC Study.

What are the objectives of Hazardous Area Classification Study?

The objective of the Hazardous Area Classification is to define the areas in which the flammable gases or vapours or dust may be present in the air in sufficient quantities to produce the explosive or ignitable mixtures.



Once area is classified, Equipment selection will be done based on zones as additional scope.



Which factors decide the HAC?

- Quantity of the Flammable liquid, gas, vapor or dust
- Flash point of the chemical
- Auto Ignition Temperature of the chemical
- Density of the Chemical
- Grade of Release
- Rate of Release

- Type of storage and Type of process equipment
- Process Parameters like Pressure, Temperature etc..
- Ventilation

What is type of Flameproof Equipment (Type of protection)?

Protection Technique	Definition
Ex ib	Intrinsic Safety
Ex d	Flameproof
Ex e	Increased Safety
Ex p	Pressurized or Purged
Ex s	Special Protection
Ex n	Non-sparking
Ex ia	Intrinsically Safe
Ex ma	Encapsulation
Ex q	Powder Filling (Sand Filling)
Ex o	Oil Immersion

What are the key elements in equipment selection?

- Other than the protection of equipment it is important to select the equipment based on Gas Group & Temperature Class
- Relationship between temperature and maximum surface temperature of the apparatus is given below:

Temperature Class	Maximum Surface Temperature (°C)
T1	>450
T2	>300
T3	>200
T4	>135
T5	>100
T6	>85

What are the National & International Standards which guide the HAC study?

- IS 5572 – Classification of hazardous areas having flammable gases and vapors for electrical installation
- IS 5571 - Guide for Selection of Electrical Equipment for Hazardous Areas
- ANSI/NFPA 497, Classification of Gas, Vapors and Dusts for Electrical Equipment in Hazardous Classification Locations.
- International Electro-technical Commission

What is meant by flash point and auto ignition temperature? How does it relevant for safety?

Flash Point: The minimum temperature at which liquid/dust when mixed with air can form a ignitable mixture, hence even a small ignition source can lead to fire or explosion.

Hence HAC study will classify the area and inform the occupant that these zones can have ignitable mixture in air.

Auto Ignition Temperature: The minimum temperature at which liquid/vapor/dust/ gas can ignite itself without any ignition source.

Auto ignition temperature is critical to decide the equipment selection as electrical equipment itself generate heat which may lead to fire or explosion.

What zones signifies?

Zone 0 represents an area in which explosive gas atmosphere is present continuously or for long periods. Occurrences are lasting ≥ 1000 hours per year or $> 10\%$ operating time.

Zone 1 represents an area in which explosive gas atmosphere is likely to occur periodically during normal operation. Occurrences are lasting between 10 and 1000 hours per year or 0.1-10% operating time.

Zone 2 represents an area in which an explosive gas atmosphere is not likely to occur in normal operation. If it does occur, it is likely to do so only infrequently for short periods (leaks or maintenance), i.e., less than 10 hours per year or less than 0.1% operating time.

Zone 20 represents an area in which a dust cloud may exist continuously, or may be expected to continue for long periods or for short periods which occur frequently (≥ 1000 hours per year, or $> 10\%$ of operating time).

Zone 21 represents an area in which a source can be expected to occasionally release combustible dust in normal operation (between 10 and 1000 hours per year or between 0.1% and 10% of operating time).

Zone 22 represents an area in which a source that is not expected to release combustible dust during normal operation; if it releases, it is likely to do so only infrequently and for short periods only (less than 10 hours per year or less than 0.1% of operating time).

What are the details required to conduct the hazardous area classification study?

- Process Parameters
- MSDS
 - Flash Point of All the chemicals including intermediate & finish products
 - Auto Ignition Temperature
 - Density
- Ventilation Technical Details
- Scaled Layout
- Elevation Layout

- Existing Electrical Equipment Specification

Source: Efficaz Consulting & Solutions.
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Report on ASSE Professional Development Conference & Exposition 2017 at Denver

Reported By – Miss Preetly Gupta (Chair Public / Community Relations ASSE India Chapter)

The ASSE Professional Development Conference and Exposition 2017 was held in the beautiful mountain city of Denver, Colorado from June 19-21. Considered to be the largest safety conference in the world, it was attended by over 5000 delegates including professionals and students from around the globe.

Although there were several educational sessions organized, with an aim to support aspiring CSP, before and after the PDC, the main event was kick started with the inauguration of the Exposition on June 19.



The PDC formally began early morning of June 20, with a general session held in the ballroom to accommodate maximum number of attendees. Tom Morris, a charismatic leader, inspired several of us though his presentation on 'True Success, the art of achievement in times of change'.

The next couple of days witnessed people juggling between several simultaneous educational sessions and visiting the over 500 booths at the exposition, where exhibitors like Cintas, 3M, Dupont,



Caterpillar and so clamored to show case their innovative and latest products. Universities like Columbia University had also put up their booth to encourage prospective students to enroll for their courses in safety - both online and classroom.

The attendees were also lured by the token give always and several games and prizes available from time to time. There were several stalls for tea/coffee and non-alcoholic beverages and seating arrangements throughout the exhibition hall for people to put up their feet and take a break.

The speakers had their own speaker lounge to practice their presentations. The rest had an opportunity to mingle and network at the Global Lounge which was available throughout the conference.

Besides, ASSE conferred chapter recognition and other individual awards on the delegates present amidst great fanfare. The evenings offered further networking and relaxing opportunities in the form of WISE and Nigeria Night.



There was something for everybody at the PDC and exposition. Infact ASSE too had their own booths to offer educational sessions, books and merchandise

on sale. There were first aid kits and information booths at every corner to take care of exigencies. Infact, one could not do justice in such a short span. There was much to acquire in terms of knowledge and experience and one had to pick and choose, being guilt ridden at having missed some or the other session or booth.



So for those who could not attend this year's conference, do not lose hope. Save the date for Safety 2018 which will be held from June 3-6 at the historical city of San Antonio, Texas. Visit the ASSE website and check out further details, including tips on becoming a speaker!



Important days in Safety, Health and Environmental Calendar of July, 2017

International Day of the World's Indigenous People 09 Aug 2017

There are an estimated 370 million indigenous people in the world, living across 90 countries. They make up less than 5 per cent of the world's population, but account for 15 per cent of the poorest. They speak an overwhelming majority of the world's estimated 7,000 languages and represent 5,000 different cultures.

Indigenous peoples are inheritors and practitioners of unique cultures and ways of relating to people and the environment. They have retained social, cultural, economic and political characteristics that are distinct from those of the dominant societies in which they live. Despite their cultural differences, indigenous peoples from around the world share common problems related to the protection of their rights as distinct peoples.

Indigenous peoples have sought recognition of their identities, way of life and their right to traditional lands, territories and natural resources for years, yet throughout history; their rights have always been violated. Indigenous peoples today, are arguably among the most disadvantaged and vulnerable groups of people in the world. The international community now recognizes that special measures are required to protect their rights and maintain their distinct cultures and way of life.

2017 Theme: 10th Anniversary of the UN Declaration on the Rights of Indigenous Peoples

Ten years ago, on 13 September 2007, the General Assembly adopted the United Nations Declaration on the Rights of Indigenous Peoples, a major milestone with respect to the cooperation and solidarity between indigenous peoples and Member States.

The Declaration is the most comprehensive international instrument on the rights of indigenous peoples. It embodies global consensus on the rights of indigenous peoples and establishes a universal framework of minimum standards for their survival, dignity and well-being. It elaborates on existing human rights standards and fundamental freedoms, as they apply to the specific situation of indigenous peoples.

Over the last decade, the implementation of the Declaration has achieved some major successes in at the national, regional and international levels. Despite the achievements, there continues to be a gap between the formal recognition of indigenous peoples and the implementation of policies on the ground.

Source: www.un.org

International Youth Day 12 Aug 2017

The theme of International Youth Day 2017 is “**Youth Building Peace**”.

Since the adoption of Security Council Resolution 2250 in 2015, there is growing recognition that as agents of change, young people are critical actors in conflict prevention and sustaining peace. International Youth Day 2017 is dedicated to celebrating young people’s contributions to conflict prevention and transformation as well as inclusion, social justice, and sustainable peace.

The current generation of youth is the largest in history and young people often comprise the majority in countries marked by armed conflict or unrest, therefore considering the needs and aspirations of youth in matters of peace and security is a demographic imperative.

Another Security Council Resolution, Resolution 2282 (2016) recognizes that the scale and challenges of sustaining peace requires partnerships between stakeholders, including youth organizations. It also reaffirms the important role youth can play in deterring and resolving conflicts, and are key constituents in ensuring the success of both peacekeeping and peace building efforts.

The 2030 Agenda for Sustainable Development committed to fostering peaceful and inclusive societies and affirmed that “sustainable development cannot be realized without peace and security”. Goal 16 aims to ensure responsive, inclusive, participatory and representative decision-making at all levels. The World Program of Action for Youth, which provides a policy framework and practical guidelines to improve the situation of young people, also encourages “promoting the active involvement of youth in maintaining peace and security”.

Young people’s inclusion in the peace and security agenda and in society more broadly, is key to building and sustaining peace. The process of social inclusion for youth, including participation in decision-making as well as access to quality education, health care and basic services promotes their role as active contributors to society and affords young people with opportunities to reach their potential and achieve their goals. When youth are excluded from political, economic and social spheres and processes, it can be a risk factor for violence and violent forms of conflict. Therefore, identifying and addressing the social exclusion of young people is a precondition for sustaining peace.

International Youth Day 2017 Event at United Nations Headquarters

The official commemorative event to celebrate International Youth Day at the United Nations Headquarters in New York will take place on Friday, 11 August 2017.

Organized by the United Nations Division for Economic and Social Affairs (DESA) in collaboration with the United Nations Inter-agency Network on Youth Development (UN IANYD) Working Group on Youth and Peace building, the event will consider the social development aspects of youth, peace and security. In particular, the event aims to cover issues, approaches and challenges to social inclusion for the promotion and maintenance of peace and security.

What Do People Do?

Many activities and events that take place around the world on International Youth Day promote the benefits that young people bring into the world. Many countries participate in this global event, which may include youth conferences on issues such as education and employment. Other activities include concerts promoting the world’s youth, as well as various sporting events, parades and mobile exhibitions that showcase young people’s achievements.

Source: www.un.org

World Humanitarian Day 19 Aug 2017

The United Nations’ (UN) World Humanitarian Day is held on August 19 each year. The day honors all humanitarians who have worked in the promotion of the humanitarian cause, and those who have lost their lives in the cause of duty. It aims to increase public awareness about humanitarian assistance activities worldwide and the importance of international cooperation.

What Do People Do?

World Humanitarian Day is a day dedicated to humanitarians worldwide, as well as to increase public understanding of humanitarian assistance activities. The day aims to honor humanitarian workers who have lost their lives or injured themselves in the course of their work, and to acknowledge the ongoing work of humanitarian staff around the world.

Many communities and organizations try to increase the importance of humanitarians by distributing publicity and information material. Additionally, some try to speak to the press to help spread these key messages of World Humanitarian Day, while other groups organize public events worldwide that feature humanitarian work.

For the year 2010 and beyond, it is anticipated that World Humanitarian Day will focus on particular humanitarian themes to help increase public awareness.

Background

Humanitarians provide life-saving assistance to millions of people worldwide. They place their own lives at risk to help others in conflict zones and areas of natural hazards. More than 700 humanitarian workers have died or experienced the most dangerous situations while trying to help those in need. Humanitarians provide support for different world challenges such as hunger,

gender-based violence, refugees and displaced people, help for children, as well as clean water and access to sanitation.

World Humanitarian Day was established by the General Assembly of the UN in December 2008 and was first observed in August 2009. The date of August 19 is the anniversary date of the 2003 Canal Hotel bombing in Baghdad where twenty-two people lost their lives including, the UN's High Commissioner for Human Rights and the Special Representative of the Secretary-General to Iraq, Sergio Vieira de Mello.

The total number of people affected by natural disasters has risen over the past decade, and about 211 million people are directly affected each year. Women and children are especially affected because of their ongoing struggles with poverty, insecurity, hunger, poor health and environmental decline. There are new and difficult challenges that arise each year that will require more flexible funding and adaptable humanitarian work. The increasing economic crisis and global challenges such as poverty, global health problems, increase prices and the rising number of people on the move, increases the need for humanitarians each year.

Source: www.timeanddate.com

International Day of the Remembrance of the Slave Trade and Its Abolition 23 Aug 2017

The United Nations' (UN) International Day for the Remembrance of the Slave Trade and its Abolition is annually observed on August 23 to remind people of the tragedy of the transatlantic slave trade. It gives people a chance to think about the historic causes, the methods, and the consequences of slave trade.

What Do People Do?

Each year the UN invites people all over the world, including educators, students, and artists, to organize events that center on the theme of this day. Theatre companies, cultural organizations, musicians, and artists take part on this day by expressing their resistance against slavery through performances that involve music, dance, and drama.

Educators promote the day by informing people about the historical events associated with slave trade, the consequences of slave trade, and to promote tolerance and human rights. Many organizations, including youth associations, government agencies, and non-governmental organizations, actively take part in the event to educate society about the negative consequences of slave trade.

Background

In late August 1791, an uprising began in Santo Domingo (today Haiti and the Dominican Republic) that would have a major effect on abolishing the transatlantic slave trade. The slave rebellion in the area weakened the

Caribbean colonial system, sparking an uprising that led to abolishing slavery and giving the island its independence. It marked the beginning of the destruction of the slavery system, the slave trade and colonialism.

International Day for the Remembrance of the Slave Trade and its Abolition was first celebrated in many countries, in particular in Haiti, on August 23, 1998, and in Senegal on August 23, 1999. Each year the United Nations Educational, Scientific and Cultural Organization (UNESCO) reminds the international community about the importance of commemorating this day. This date also pays tribute to those who worked hard to abolish slave trade and slavery throughout the world. This commitment and the actions used to fight against the system of slavery had an impact on the human rights movement.

Source: www.timeanddate.com

International Day against Nuclear Tests 29 Aug 2017

The United Nations' (UN) International Day against Nuclear Tests brings public awareness and education about the effects of global nuclear weapon tests. The day aims to end nuclear testing and to promote peace and security.

What do People Do?

The International Day against Nuclear Tests aims to raise people's awareness on the need to prevent nuclear catastrophes to avert devastating effects on humankind, the environment and the planet. Many people use the day as an opportunity to share their perspective on the issue of nuclear weapons and testing. Different organizations may host educational and public activities to bring awareness of the use of nuclear weapons and the dangers involved with nuclear weapons testing and usage.

Background

The history of nuclear testing began on July 16, 1945, when an atomic bomb was used at a desert test site in Alamogordo, New Mexico, in the United States. More than 2000 nuclear tests were carried out worldwide between 1945 and 1996. Nuclear weapons tests are generally broken into different categories reflecting the test's medium or location:

- Atmospheric tests.
- Underwater tests.
- Underground tests.

Over the years, there have been calls to ban nuclear test to ensure the protection of people's lives and the environment around them. The UN approved a draft resolution in late 2009 for an international day against nuclear tests to raise public awareness about the threats and dangers of nuclear weapons. It was also hoped that

UN's member states would move towards the idea of nuclear disarmament.

The International Day against Nuclear Tests was declared to be annually held on August 29, which marks the closing of one of the world's largest nuclear test sites (in Kazakhstan) in 1991. The day is devoted to enhancing public awareness and education about the effects of nuclear weapon test explosions or any other nuclear explosions. It also promotes the need for a nuclear weapon-free world. The day's first official observance was marked for August 29, 2010.

Source: www.timeanddate.com

Lightening Safety While Working in Open Areas

Incident related to Lightning strikes are common worldwide during heavy monsoon rains.

What You Might Not Know About Lightning

- **All thunderstorms produce lightning and are dangerous.** In an average year, lightning kills about the same number of people as Tsunami and more people than hurricanes.
- **Lightning often strikes outside the area of heavy rain and may strike as far as 10 miles from any rainfall.** Many lightning deaths occur ahead of storms or after storms have seemingly passed.
- **If you can hear thunder, you are in danger.** Don't be fooled by blue skies. If you hear thunder, lightning is close enough to pose an immediate threat.

Common Lightning Myths

Myth - lightning never strikes twice in the same place.

Fact - Very tall buildings have been struck several times in the same storm by lightning.

Myth - Many people think that during a thunderstorm it is better to seek shelter under tall trees.

Fact - Trees are more likely to be struck by lightning.

Safety Tips:

- During monsoon if you observe heavy rains along with lightening seek shelter inside a protected building (such as Control rooms, PIB, Site Offices, etc.) or a car.
- Ensure immediate evacuation of all personnel from elevated points of work (scaffolds, but also columns / equipment in case of an approaching storm or rain with lightning and take shelter in the protected building.
- Stay away from metal conductors such as wires or fences. Metal does not attract lightning, but lightning can travel long distance through it.
- The "30-30 Rule" states that when you see lightning, count the time until you hear the associated thunder, and if this time delay is 30 seconds or less,

go immediately to a safe location. This indicates that we are close vicinity of lightning.

- Move people to sheltered places, but away from improperly grounded high points like cranes, scaffolds, trees, etc.
- During monsoon, ensure that all the elevated structures and equipment's are earthed while working in open areas.
- If you feel your hair standing on end, and/or hear "crackling noises," you are in lightning's electric field. If caught outside during close lightning activity, immediately remove metal objects (including jewellery, belts, car keys etc.), place your feet together, duck your head, and crouch down low with hands on knees (refer photograph below).
- Avoid hydrocarbon open venting to atmosphere. As part of pre-monsoon check ensure that there is no hydrocarbon leak from the tank roof / rim seals.
- Avoid use of Hazardous location for shelter if possible during lightning while working in open areas:
 - a) Flammable hydrocarbons storages.
 - b) Standing near a Lightning protection down-conductor, mast, or earthing system.
 - c) Communications towers, and tall metallic masts.
 - d) Areas on tops of buildings.
 - e) Contact with metal objects and electrical appliances.
 - f) Swimming pools
 - g) Areas near wire fences, clothes lines, overhead wires, pipelines and railroad tracks.
- Wait a minimum of 30 minutes from the last observed lightning or thunder before resuming activities.
- It is advised not to use mobile phones while working in open areas during heavy rain and lightning although technically not proven.

Note: People who have been struck by lightning do not carry an electrical charge and are safe to handle. **Apply first aid immediately if you are qualified to do so. Get emergency help promptly.**

Safe position during lightening if outside in Open

- Crouch on the ground
- Weight on the heels of your feet
- Heels together
- Head lowered
- Eyes closed
- Ears covered



Health Tips



10 Ways to control High Blood pressure

A recent survey by All India Institute of Medical Science (AIIMS) shows that every 3 out of 5 person in urban India and every 1 out of 4 person from rural India is suffering from High Blood Pressure in certain degree. People ages between 22 to 36 years are worst affected segment within overall population. Growth in tendency of Hypertension has increased 300% since last 25 years. It is alarming for the country with youngest population. Hence it is important to think about this serious health issue. Here is 10 easy and very practicable tips for controlling and reducing High Blood pressure (even without medicine). Remember, once you start the medicine, it is very difficult to get rid of medicine.

If you've been diagnosed with high blood pressure, you might be worried about taking medication to bring your numbers down.

Lifestyle plays an important role in treating your high blood pressure. If you successfully control your blood pressure with a healthy lifestyle, you might avoid, delay or reduce the need for medication.

Here are 10 lifestyle changes you can make to lower your blood pressure and keep it down.

1. Lose extra pounds and watch your waistline

Blood pressure often increases as weight increases. Being overweight also can cause disrupted breathing while you sleep (sleep apnea), which further raises your blood pressure.

Weight loss is one of the most effective lifestyle changes for controlling blood pressure. Losing just 10 pounds (4.5 kilograms) can help reduce your blood pressure.

Besides shedding pounds, you generally should also keep an eye on your waistline. Carrying too much weight around your waist can put you at greater risk of high blood pressure.

In general:

- Men are at risk if their waist measurement is greater than 40 inches (102 centimeters).
- Women are at risk if their waist measurement is greater than 35 inches (89 centimeters).

These numbers vary among ethnic groups. Ask your doctor about a healthy waist measurement for you.

2. Exercise regularly

Regular physical activity — at least 30 minutes most days of the week — can lower your blood pressure by 4 to 9 millimeters of mercury (mm Hg). It's important to be consistent because if you stop exercising, your blood pressure can rise again.

If you have slightly high blood pressure (prehypertension), exercise can help you avoid developing full-blown hypertension. If you already have hypertension, regular physical activity can bring your blood pressure down to safer levels.

The best types of exercise for lowering blood pressure include walking, jogging, cycling, swimming or dancing. Strength training also can help reduce blood pressure. Talk to your doctor about developing an exercise program.

3. Eat a healthy diet

Eating a diet that is rich in whole grains, fruits, vegetables and low-fat dairy products and skimps on saturated fat and cholesterol can lower your blood pressure by up to 14 mm Hg. This eating plan is known as the Dietary Approaches to Stop Hypertension (DASH) diet.

It isn't easy to change your eating habits, but with these tips, you can adopt a healthy diet:

- **Keep a food diary.** Writing down what you eat, even for just a week, can shed surprising light on your true eating habits. Monitor what you eat, how much, when and why.
- **Consider boosting potassium.** Potassium can lessen the effects of sodium on blood pressure. The best source of potassium is food, such as fruits and vegetables, rather than supplements. Talk to your doctor about the potassium level that's best for you.
- **Be a smart shopper.** Read food labels when you shop and stick to your healthy-eating plan when you're dining out, too.

4. Reduce sodium in your diet

Even a small reduction in the sodium in your diet can reduce blood pressure by 2 to 8 mm Hg.

The effect of sodium intake on blood pressure varies among groups of people. In general, limit sodium to less than 2,300 milligrams (mg) a day or less. However, a lower sodium intake — 1,500 mg a day or less — is appropriate for people with greater salt sensitivity, including:

- African-Americans
- Anyone age 51 or older
- Anyone diagnosed with high blood pressure, diabetes or chronic kidney disease

To decrease sodium in your diet, consider these tips:

- **Read food labels.** If possible, choose low-sodium alternatives of the foods and beverages you normally buy.
- **Eat fewer processed foods.** Only a small amount of sodium occurs naturally in foods. Most sodium is added during processing.
- **Don't add salt.** Just 1 level teaspoon of salt has 2,300 mg of sodium. Use herbs or spices to add flavor to your food.
- **Ease into it.** If you don't feel you can drastically reduce the sodium in your diet suddenly, cut back gradually. Your palate will adjust over time.

5. Limit the amount of alcohol you drink

Alcohol can be both good and bad for your health. In small amounts, it can potentially lower your blood pressure by 2 to 4 mm Hg.

But that protective effect is lost if you drink too much alcohol — generally more than one drink a day for women and for men older than age 65, or more than two a day for men age 65 and younger. One drink equals 12 ounces of beer, five ounces of wine or 1.5 ounces of 80-proof liquor.

Drinking more than moderate amounts of alcohol can actually raise blood pressure by several points. It can also reduce the effectiveness of blood pressure medications.

6. Quit smoking

Each cigarette you smoke increases your blood pressure for many minutes after you finish. Quitting smoking helps your blood pressure return to normal. People who quit smoking, regardless of age, have substantial increases in life expectancy.

7. Cut back on caffeine

The role caffeine plays in blood pressure is still debated. Caffeine can raise blood pressure by as much as 10 mm Hg in people who rarely consume it, but there is little to no strong effect on blood pressure in habitual coffee drinkers.

Although the effects of chronic caffeine ingestion on blood pressure aren't clear, the possibility of a slight increase in blood pressure exists.

To see if caffeine raises your blood pressure, check your pressure within 30 minutes of drinking a caffeinated beverage. If your blood pressure increases by 5 to 10 mm Hg, you may be sensitive to the blood pressure raising effects of caffeine. Talk to your doctor about the effects of caffeine on your blood pressure.

8. Reduce your stress

Chronic stress is an important contributor to high blood pressure. Occasional stress also can contribute to high blood pressure if you react to stress by eating unhealthy food, drinking alcohol or smoking.

Take some time to think about what causes you to feel stressed, such as work, family, finances or illness. Once you know what's causing your stress, consider how you can eliminate or reduce stress.

If you can't eliminate all of your stressors, you can at least cope with them in a healthier way. Try to:

- **Change your expectations.** Give yourself time to get things done. Learn to say no and to live within manageable limits. Try to learn to accept things you can't change.
- **Think about problems under your control and make a plan to solve them.** You could talk to your boss about difficulties at work or to family members about problems at home.
- **Know your stress triggers.** Avoid whatever triggers you can. For example, spend less time with people who bother you or avoid driving in rush-hour traffic.

- **Make time to relax and to do activities you enjoy.** Take 15 to 20 minutes a day to sit quietly and breathe deeply. Try to intentionally enjoy what you do rather than hurrying through your "relaxing activities" at a stressful pace.
- **Practice gratitude.** Expressing gratitude to others can help reduce stressful thoughts.

9. Monitor your blood pressure at home and see your doctor regularly

Home monitoring can help you keep tabs on your blood pressure, make certain your lifestyle changes are working, and alert you and your doctor to potential health complications. Blood pressure monitors are available widely and without a prescription. Talk to your doctor about home monitoring before you get started.

Regular visits with your doctor are also key to controlling your blood pressure. If your blood pressure is under control, you might need to visit your doctor only every six to 12 months, depending on other conditions you might have. If your blood pressure isn't well-controlled, your doctor will likely want to see you more frequently.

10. Get support

Supportive family and friends can help improve your health. They may encourage you to take care of yourself, drive you to the doctor's office or embark on an exercise program with you to keep your blood pressure low.

If you find you need support beyond your family and friends, consider joining a support group. This may put you in touch with people who can give you an emotional or morale boost and who can offer practical tips to cope with your condition.

Source: <https://mayoclinic.org>



Mr. Lokesh Khandelwal (Member ASSE India Chapter) has joined the elite club of CSP from India. He has passed the prestigious certification examination on December 2016. His CSP License # is 32431.



HSE Quiz

1. What are the advised steps for an emergency when an animal runs in front of you on the road?

- A Accelerate around the animal
B Firmly apply brakes and do not swerve
C Avoid the animal at all costs
D Brake as hard as possible and drive onto the roadside

2. While working in workstation the seat should be high enough so that your elbows:

- A Are level with the keyboard
B Are directly above your knees
C Are level with the desk
D None of the above

3. What are the four factors to consider when lifting (T.I.L.E.)?

- A Toil, Inside or outside, Lifting, Energy
B Task, Individual, Load, Equipment
C Truck, Inside, Layers, Equal
D Together, Implies we can, Lift, Everything

4. We need to rest our eyes from looking at the computer monitor:

- A When we feel tired
B Every 20 minutes
C Every 60 minutes
D Only at scheduled breaks

5. Slips, trips and falls contribute to 50% of all accidents. What measures can be taken to reduce the risk of injury?

- A Keeping all equipment clean and well maintained
B Ensuring walkways remain unobstructed
C Reporting any slip, trip or fall hazard
D All of the above

Watch out the next issue for correct answer

Answers from last issue's (June / 2017) Quiz: 1 (B); 2 (C); 3 (D); 4 (A); 5 (A)

**You are welcome to send your inputs to: Sandip Mukherjee; e-mail:
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Selected articles shall be published in next publication

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