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1. Beat the heat this summer

- Various health conditions are a direct result of rising temperatures, and they all interfere with worker performance,
- These conditions range from mild heat cramps to dangerous heatstroke, which, if not treated immediately, can lead to death.
- These conditions can also increase the risk for other accidents as overheated workers lose focus, get irritable, and make rash decisions.

Body heat

According to the National Institute for Occupational Safety and Health, in order to maintain a fairly constant internal temperature, the body finds ways to get rid of excess heat. This is done primarily by varying the rate and amount of blood circulation through the skin and by the release of fluid onto the skin by the sweat glands. The process of lowering body temperature requires the heart to pump more blood, and blood circulates closer to the surface of the skin so the extra heat is lost to the environment.

If heat loss from increased blood circulation is not adequate, the sweat glands kick in and shed sweat onto the surface of the skin. Evaporation of the sweat cools the skin. But when humidity is high, evaporation decreases. More blood goes to the external surface of the body, with less going to muscles, the brain, and other organs. This can cause a drop in strength, an increase in fatigue and possibly, a change in mental condition.

Hot environments give rise to an increased risk of accidents because of slippery, sweaty palms; dizziness; foggy safety glasses; and a heat-related decline in alertness. When people are overheated, they also become more irritable and angry and may be more likely to take shortcuts.

Take these precautions to beat the heat:

- Drink at least 1 litre or more of water throughout your shift.
- Wear light, loose-fitting, breathable clothing.
- Take frequent short breaks in cool shade.
- Eat smaller meals before work activity.
- Avoid caffeine, alcohol, and large amounts of sugar.



NEWS LETTER

Did you know?

A lack of exercise is now causing as many deaths as smoking across the world, a study suggests.

2. Study links poor ventilation with decline in decision-making



Did you know?

Drinking green tea improves your working memory, which allows your brain to process multiple pieces of information at once.

News Across the Globe

LATIN AMERICA'S CITIES SWEAT OVER HEALTH RISKS FROM URBAN HEAT HEALTH HAZARDS

- While high-rise city centres can generate their own heat islands as glass sky-scrapers reflect the sun, block airflow and pump out warm air from cooling systems, slum areas such as Rio's favelas can also become heat traps with their tightly packed concrete-block houses and lack of trees.
- The associated health risks include heat exhaustion, stress, respiratory and cardiovascular problems, while higher pollution levels are a particular threat to children and older people.
- Scientists are also studying whether heat islands can expand the spread of mosquitoes carrying dengue, Zika and chikungunya.
- Simply painting building and bus roofs white reflects heat, as does planting shady trees which can also cut air pollution. Promoting public transport over private cars, and offering tax incentives for roof gardens are also recommended.
- Longer-term, urban planners and architects should focus on expanding green areas, using less glass and positioning buildings to cut heat generation and boost airflow, experts said.

News Across the Globe

SYDNEY WEATHER: NSW HEALTH ISSUES WARNING ON HEAT AND SMOG

- Ground-level ozone triggered on sunny, still days in areas of high air pollution will have Sydney residents with asthma and other respiratory conditions on alert.
- Sydney's air quality was "poor", according to the OEH's Air Quality Index, which rates air quality as very good, good fair, poor, very poor and hazardous on a scale of zero to 250, with 250 being the worst.
- Ozone is composed of the basic oxygen molecule with an additional oxygen atom, making it an unstable, highly reactive gas. It forms a protective barrier in the Earth's upper atmosphere, filtering out damaging UV radiation from the sun. But when sunlight and extreme heat on still days combine with hydrocarbon and nitrogen oxide from car exhausts and other air pollutants to form ozone in the atmosphere at ground level, it can have significant negative impacts on health.
- It's the blankets of smog that sits over the city on very sunny, very still Sydney days. Cities such as Sydney that have long sunny periods, little wind and high temperatures are most likely to experience ground-level ozone.
- Motor vehicle exhaust accounts for as much as 50 per cent of the organic chemicals that form ozone. Other sources are oil refining, printing, petrochemicals, lawn mowing, aviation, bushfires and burning off.
- More than one in 10 Australians, and one in six children, have asthma, accounting for 2.4 million people nationally. Some 5 to 10 per cent of cases are severe.
- Earlier this month, doctors and health experts criticised a government review of vehicle emissions and air pollution for under-reporting the health risks, saying Australian fuel quality and emissions standards were "appalling".

A recently published study indicates that indoor concentrations of carbon dioxide (CO₂) considered within a normal range was linked with significant drops in people's decision-making performance.

The study, funded by SUNY, was conducted by researchers from the Lawrence Berkeley National Laboratory in California and from SUNY Upstate Medical University. The researchers reported that, as the median CO₂ concentration increased from 600 to 2,500 ppm, decision-making decreased significantly. The results were not expected because previous studies had looked at impacts with much higher levels of CO₂ where cognitive effects were thought to start.

While more and larger studies are needed, this one showed substantial decision-making reductions at levels that are commonly found in schools and colleges. The magnitude of CO₂-associated deterioration in decision-making performance ranged from 11 percent to 94 percent.

According to the Lab Center News website, "On nine scales of decision-making performance, test subjects showed significant reductions on six of the scales at CO₂ levels of 1,000 parts per million (ppm) and large reductions on seven of the scales at 2,500 ppm. The most dramatic declines in performance, in which subjects were rated as 'dysfunctional,' were for taking initiative and thinking strategically."

Levels of CO₂ above 2,000 ppm indicate a ventilation problem. At this level many building occupants will perceive air as being stuffy and people may feel lethargic. The main indoor source of CO₂ is human expiration.

Though the study looked at decision-making vs. learning, there are clear



NEWS LETTER

Did you know?

Exercising when you're young will improve your brain function when you're older.

implications for classrooms.

"What struck me is how this study may change how to interpret CO2 levels in indoor environments," said Greg Siwinski, certified industrial hygienist for the Central New York Occupational Health Center. "This certainly implies that enough outdoor air, i.e., good ventilation, is necessary for comfort and performance."

Did you know?

In a year, one worker dies every 15 seconds and 6,300 workers daily.

News Across the Globe

THE 'TRASH GLACIER'

- Hong Kong's tourism now brings around 60 million additional people to the islands per year. Its beaches have faced an increasing deluge of rubbish by sea.
- Environmentalists are unsure of the source, but it seems to come periodically with changing weather patterns.
- We could be getting stuff from Taiwan coming down, and the Philippines and Vietnam coming up," says Woodring. It may also be flowing from Mainland China – possibly through illegal dumping or seasonal floods that washed rubbish into the sea along the Pearl River Delta. "A lot of stuff has Chinese writing on it, but where it entered the water, you don't really know."
- People in Hong Kong are also increasingly concerned about an illegal landfill on the Chinese island called Wai Ling Ding, around 20km south of Hong Kong. Some have compared it to a 'trash glacier' that keeps on sliding down the hill and into the sea. "That thing is twenty stories tall, that wall of trash. If there was a big typhoon, and it hit the right direction, the waves could come into the bottom and collapse the whole thing," says Woodring. "It would be a natural disaster for Hong Kong."
- The Ocean Recovery Alliance has recently launched the Global Alertapp. It allows people across the world to report rubbish hotspots in their rivers and on their coastlines, which Woodring hopes could bring greater international awareness to these issues and encourage local communities to take more responsibility. Simply tying bamboo across the width of a river can catch floating rubbish and make it easier to collect, he says – small steps that may make all our oceans a little cleaner.

3. Edible Water Bubbles to replace Plastic Bottles and this is how we'll drink in future



I believe we all agree that plastic is bad for us. It might have become a part of modern lifestyle, but the convenience of plastic shopping bags carries with it a very high cost to the environment and our health.

Therefore, in order to build awareness about the ills of plastic and facilitate something that can be used as a replacement, these edible water bubbles, called the Ooho are here.

Encasing a blob of drinking water within an edible layer made from natural seaweed extract ensures that nothing goes to waste.

Furthermore, the blobs are fully biodegradable. There'll be nothing left if they're not used for more than 6 weeks.

Skipping Rocks Lab

The brilliant team behind this idea is not a multinational organisation, but a bunch of smart kids from Imperial College in London.

They first introduced this project back in 2013 and since then they have been relentlessly working to make their idea a success.

The crowd funding page that they recently set up received 750k USD (4 crore rupees).

News Across the Globe

UK ACTION NEEDED ON GLOBAL SUSTAINABLE DEVELOPMENT GOALS

- The UK government should take cross-departmental responsibility for the implementation of the United Nations' Sustainable Development Goals (SDGs) domestically, says the Institution of Occupational Safety and Health (IOSH).
- A report published by the cross-party Environmental Audit Committee has criticised the government for failing to set out a clear plan to deliver the global goals in the UK.
- It follows an inquiry by the committee into what the UK government is doing to implement the goals, which were agreed by nations at the UN in 2015.
- They set 17 targets to be achieved by 2030, including putting an end to extreme poverty, tackling climate change and reducing inequality.
- IOSH has just launched 'WORK 2022 – shaping the future of safety and health', its new five-year strategy, which aims to tackle inequalities in safeguarding the world's workforce.
- Among the committee's other recommendations was that the UK government should start a national conversation about implementing the goals.
- They also recognised some UK businesses are embracing the goals and urged the government to support those companies, and incentivise or require others to do likewise.
- The committee also felt the government should look for effective ways to promote responsible business behaviour.
- The Business & Sustainable Development Commission has estimated that implementing the goals could be worth up to US\$12 trillion to business by 2030.

Note: IOSH is the Chartered body for health and safety professionals. With around 44,000 members in 120 countries, we're the world's largest professional health and safety organisation.



NEWS LETTER

Did you know?

Over 2.3 million deaths occur due to occupational accidents or diseases.

160 million workers suffer work related illnesses.



Did you know?

Pollution is one of the biggest global killers, affecting over 100 million people. That's comparable to global diseases like malaria and HIV

News Across the Globe

IN INDIA, FLYING GETTING RISKIER AS SAFETY VIOLATIONS RISE

- In India, safety incidents that prompted regulatory action are likely to rise to 400 by the end of 2016, show DGCA figures
- It's getting increasingly unsafe to fly in the world's fastest growing aviation market.
- Air safety incidents that prompted regulatory action reached 280 this year, beating the 275 all of last year, data from the Directorate General of Civil Aviation showed.
- At this pace, the number may rise to more than 400 by the end of 2016, making it the worst in three years for aviation safety, according to New Delhi-based DGCA.
- The DGCA is cracking down on safety violations by airlines in recent months, including a slew of offences such as aircraft getting too close to each other, overworked staff and inebriated pilots and crew.
- In the latest incident, the DGCA ordered Jet Airways India Ltd. and state-owned Air India Ltd. to file police complaints against pilots who were found drunk, seeking legal action for the first time ever in such cases.

Given that plastic bottles take hundreds of years to decompose, if this water bubble becomes commercially available, imagine how much plastic we will be eradicating from our lives!

4. Heat and health: Doctors taking the pulse of the planet on climate change

Climate change is a threat to the health of people, not just polar bears.

Those are the overarching messages from the Medical Society Consortium on Climate and Health (MSCCH), a group representing 11 large medical societies and more than 400,000 U.S. physicians.

With its new report, entitled Medical Alert! Climate Change Is Harming Our Health, the consortium hopes that the high level of trust people place in their physicians will translate into the public taking the threat of climate change more seriously.

- **Extreme temperatures:** Climate change is causing more hot days, greater humidity and longer, hotter, more frequent heat waves. This is a particular threat to outdoor workers, athletes and city dwellers, especially if they don't have air conditioning. The 10 hottest days on record in history have all occurred since 2000. (In Canada, extreme cold is also a threat to health.)
- **Extreme weather events:** The frequency and severity of weather events, such as torrential downpours, droughts, storms and tornadoes, continues to increase. Extreme weather can knock out power and damage homes and infrastructure, such as roads and bridges, all of which can reduce access to medical care, food and water. The Louisiana flooding of 2016 and Hurricane Sandy are just two recent examples.
- **Outdoor air quality:** Climate change reduces air quality because it increases smog and pollen production. Air pollution poses a serious

News Across the Globe

AN ENTIRE RIVER IN CANADA VANISHED IN FOUR DAYS DUE TO CLIMATE CHANGE

- A vast river flowing from one Canada's largest glaciers vanished in just four days last year (2016), due to the glacier's meltdown propelled by climate change.
- Canada's Slims river which, spanned up to 150 metres at its widest points had been flowing for hundreds of years, carrying water from the massive Kaskawulsh glacier.
- In between 26 to 29 May 2016, spurred by a massive heat wave, the glacier began melting at a much faster pace. The severe meltdown ended up changing the flow of its water, which now started heading to the Gulf of Alaska - thousands of miles to the opposite of Slims river.
- Scientists are now calling this phenomenon a case of 'river piracy' - wherein the flow of one river is suddenly diverted into another.
- In this case, however, Slims River was reduced to a thin stream in mere four day, while the south-flowing Alsek river (where water from Kaskawulsh glacier is now heading) became 60 to 70 times larger than the Slims. Both rivers had earlier been comparable in size.
- The report also noted how the effect of river piracy is not limited to the immediately affected lake. In the case of Slims River, for example, two other rivers that Slims flowed into - the Klwane river and the Yukon river - have also been affected.
- The biological effects of these rivers drying can be quite profound for neighbouring ecosystems. Scientists have already recorded massive sediment erosion in these areas, and are now worried about the long term implications on surrounding human and biological communities.



NEWS LETTER

Did you know?

It's been estimated that there are more stars in the universe than there are grains of sand on earth, but there are more atoms in one grain of sand than there are stars in the universe

threat to people with respiratory illnesses such as chronic obstructive pulmonary disease, asthma and allergies.

- **Wildfires:** Increasing temperatures and more frequent droughts have fuelled wildfires worldwide. The smoke and particles are a serious threat to people with respiratory and cardiovascular illnesses.
- **Ticks and mosquito-borne infections:** As climate patterns change, so does the range of disease-carrying ticks, mosquitoes and fleas. Lyme disease is spreading, Zika is a new threat and warming temperature could even allow malaria to return to the United States.
- **Water-related infection:** Higher water temperatures, rising sea levels, heavier storms and flooding can lead to contamination of drinking water and the proliferation of algae and water-borne pathogens such as E.coli and Vibrio.
- **Food-related infection:** Extreme weather events affect not only waterways, but surrounding land; flooding and downpours can spread fecal bacteria and other pathogens.
- **Mental health and well-being:** Aside from the physical harm caused by climate change, extreme weather events can cause a lot of stress and anxiety. The mental-health effects have been obvious in the aftermath of the devastating Fort McMurray wildfires.

Did you know?

The US has two satellites chasing each other around the earth to track gravitational anomalies. Their nicknames are Tom & Jerry.

News Across the Globe

Edible food wrappers



With the aim to reduce the usage of plastic a research team at the United States Department of Agriculture are working hard at developing a packaging material made from casein – a protein found in milk.

The edible wrapper will not only be edible but also biodegradable. It will provide the eater with extra nutrition in the form of proteins and keep the food from spoiling.

News Across the Globe

Shampoo balls



Developed by a schoolboy, this genius product will end the use of plastic bottles once and for all.

Called Nohbo, every shampoo ball contains an amount that is ideal for a one-time wash. What's interesting to note here is that it remains solid until rubbed with water and worked into a lather.

It's ideal for travellers because it eliminates spills, leaks, and of course, plastic packaging! The balls come wrapped in biodegradable material that's made from plant extracts.

5. 10 timeless work habits to boost your productivity

In our modern world, everyone is looking to do things faster, better, smarter, so it's no wonder that productivity hacks are incredibly popular. Apply even a few of these and you will increase your productivity, guaranteed:

1. Define your MITs. MIT stands for most important task, and just by taking a few moments to identify 3-5 things you must accomplish each day, you will improve your overall productivity because you can't focus on your important work if you don't know what's important.
2. Don't multi-task. We live in a multi-tab, multiple device kind of world, but scientists tell us that none of us is truly a good multi-tasker. Working on one thing at a time will make you faster and less apt to make mistakes.
3. Create a morning routine (and an afternoon routine and an evening routine). For many people, defining and sticking to a morning routine can help ensure a smooth start to the day. If you know you operate at your best when you have exercised and had a good breakfast, making those things a priority will positively affect the rest of your day. Likewise, routines for other times of the day can streamline daily tasks.
4. Edit your input streams and simplify. Most people I know wouldn't want



NEWS LETTER

Did you know?

The most stressed out people on Earth are between 18 to 33 years old

Did you know?

The average human brain contains around 78% water

to give up their newsletters, social media, or blog reading, but there are ways to make your media consumption more productive. First, ruthlessly edit your media streams to the most valuable and important ones; then, find ways to streamline your consumption with RSS feeds, apps like Hootsuite, and offline readers.

5. Be succinct. When writing emails, get to the point quickly. A good rule of thumb is to limit your email to five sentences or less.
6. Do important work. In the classic "Seven Habits of Highly Effective People," Steven Covey presents a matrix that divides our activities into four categories: urgent and important, not urgent but important, urgent and unimportant, and not urgent not important. The key is to spend most of our time in quadrant two, doing the important work that isn't driven by crisis.
7. Batch similar tasks. The simplest example of this is choosing to process emails only once or twice a day rather than jumping like one of Pavlov's dogs every time the computer dings. Identify tasks that are interrupting your flow (email, phone calls, meetings, etc.) and schedule a time to do them all at once.
8. Eliminate, automate, delegate. Doing your best work often requires eliminating or minimizing tasks that you don't need to do. First, eliminate anything you can from your to do list; determine if any tasks can be automated with technology or templates; and finally, delegate any tasks that don't need your personal attention to a coworker or assistant.
9. Work offline. The Internet is a fantastic, but tempting place. If you have difficulty avoiding its distractions, work offline or take your work somewhere without an Internet connection to force some focus. I get so much work done on long plane journeys and I sometimes go to a local Coffee shop for some uninterrupted work.
10. Do the thing you want to do the least, first. Prioritize those items you are most likely to procrastinate your day will go much more smoothly when the phone call you're dreading or the report you don't want to write are finished and no longer weighing on your mind.

You don't need a fancy system for productivity, just a few good, timeless habits

For any suggestions,

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News Across the Globe

Global Warming Blamed for Increasing Incidence of Type-2 Diabetes

A new study from the Netherlands revealed that global warming played a role in the increasing incidence of type-2 diabetes all around the world.

The study, published in the BMJ Open Diabetes Research & Care, found a link between the rising temperatures and increasing number of people being diagnosed with type-2 diabetes.

"When it gets warmer, there is higher incidence of diabetes," said Lisanne Blauw, a PhD candidate Einthoven Laboratory in Netherlands and co-author of the study, in a report from The Huffington Post. "It's important to realize global warming has further effects on our health, not only on the climate."

For the study, the researchers compared the annual average temperature across the U.S. from 1996 to 2009 with self-reported cases of type-2 diabetes taken from the Centers for Disease Control and Prevention database.

The researchers found that an increase of one degree Celsius in the temperature could account for more than 100,000 new cases diabetes in the U.S. annually. The researchers developed three hypotheses to explain the link between warming climate and increasing trend of diabetes.

The first hypothesis involve the so-called brown adipose tissue, the fat cells that burn energy and produce heat. The researchers noted that these brown fats become active during cold climate to prevent the body temperature from dropping dramatically. However, warmer temperatures cause the brown fat to be less active, leading to insulin resistance and diabetes.

It is also possible that the warmer temperature is forcing people to move and exercise less. Change in their diets due to the higher temperature could also play a part in the connection between warmer temperature and high prevalence of type-2 diabetes.

Despite the link the researchers found, they noted that the study cannot prove a causal relationship between warmer temperatures and increased risk of diabetes. Due to this, the researchers are planning to conduct another study to smaller populations and develop a way activate the brown fat.

News Across the Globe

Trash Island: This Remote Pacific Isle Found With 32 Million Pieces of Plastic Litter

This is paradise lost. Uninhabited and 3,000 miles away from anywhere else, one would think Henderson Island a beautiful haven untouched by human waste.

Not so. According to a report from Phys Org, the UNESCO World Heritage Site was found to be polluted with the highest density of plastic debris ever discovered anywhere in the planet. The beaches of Henderson Island is littered with up to 671 items per square meter, the highest ever recorded. The trash adds up to an estimated 37.7 million pieces of plastic.

The team, led by the British nature conservation charity RSPB, sampled five sites and found that over 17 tonnes of garbage have accumulated on Henderson Island. More than 3,570 new pieces of litter wash up every day just on one beach alone.

Lead author Dr. Jennifer Lavers explained that the garbage on Henderson Island proves that even in the most remote corners of the ocean, there's no avoiding the steadily increasing plastic pollution that litters waters worldwide.

"It's likely that our data actually underestimates the true amount of debris on Henderson Island as we were only able to sample pieces bigger than two millimetres down to a depth of 10 centimetres, and we were unable to sample along cliffs and rocky coastline," Lavers said.

"Plastic debris is an entanglement and ingestion hazard for many species, creates a physical barrier on beaches to animals such as sea turtles, and lowers the diversity of shoreline invertebrates," Lavers explained, adding that more than 200 species are at risk from eating plastic.