

# FYI



August 2020  
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*Your OSH preferred partner*

## WHICH WAY ROUND SHOULD A SURGICAL FACE MASK GO?



# EXECUTIVE DIRECTOR'S

AUGUST 2020

## Notes

As we know at the outset of August, the government has made it mandatory for all Malaysians to wear a face mask when they are out in public especially when taking the public transportation, gathers at crowded spaces and or at areas where social distancing seems impractical. As it was resolutely by Senior Defence Minister Ismail Sabri Yaakob on those who flout the mandatory mask rule will be subject to prosecution under the Prevention and Control of Infectious Diseases Act 1988 which imposes for a fine of up to RM1000.

There are many types of face masks available in the market and each product comes with its own specification and assuredly there is a specific way to wear them. Concerns have been raised that surgical masks are designed to be worn in one direction and wearing surgical masks the wrong way round will reduce its effectiveness. There seems to be some ambiguity in the rules as it can be difficult to determine exactly which way round the mask should go. Some surgical masks have a colored side, which faces outwards, but others might not.

Much of the confusion stems from the shifting conversation around the pandemic. For this edition, we will be adequately supporting you in reclaiming the confusion in explaining the functions of a surgical mask that you need to understand as well as the right way in wearing it.



**Haji Ayop Salleh**

Pengarah Eksekutif  
NIO SH

Sila imbas kod QR  
ini untuk memberi  
maklum balas  
penerbitan NIO SH



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# WHICH WAY ROUND SHOULD A SURGICAL FACE MASK GO?

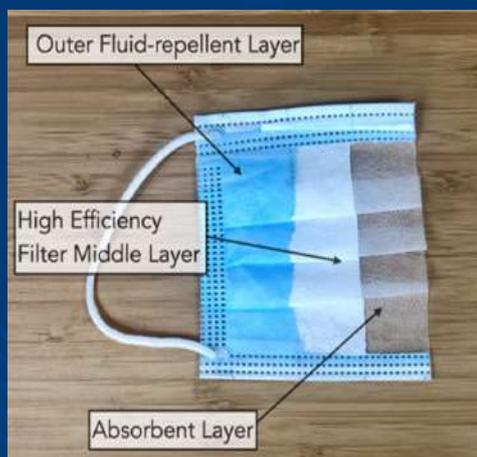
**S**urgical masks are designed to be worn in one direction only. But it can be difficult to know exactly which way round the mask should go. Some surgical masks have a coloured side, which faces outwards, but others don't. In this post, we'll cover why surgical masks should be worn properly, what each layer in a surgical mask does, and just how to tell if you're wearing your mask in the right way.



## **MOST SURGICAL MASKS ARE MADE OF THREE LAYERS.**

Surgical masks are most commonly made up of three layers. These are:

1. **Outer fluid-repellent layer:** Typically coloured blue or green, this layer repels fluid, helping to reduce the chance that viruses and bacteria from the air attach to the mask.
2. **High efficiency filter middle layer:** The middle layer is what does the hard work in capturing viruses and bacteria. Any masks which get past the outside layers are filtered here.
3. **Absorbent layer:** This layer captures and absorbs moisture from your mouth and breath. This reduces the chance of any mucus or bacteria from leaving the mask when the wearer coughs or talks.



## **A SIMPLE GUIDE TO WEARING A SURGICAL MASK CORRECTLY**

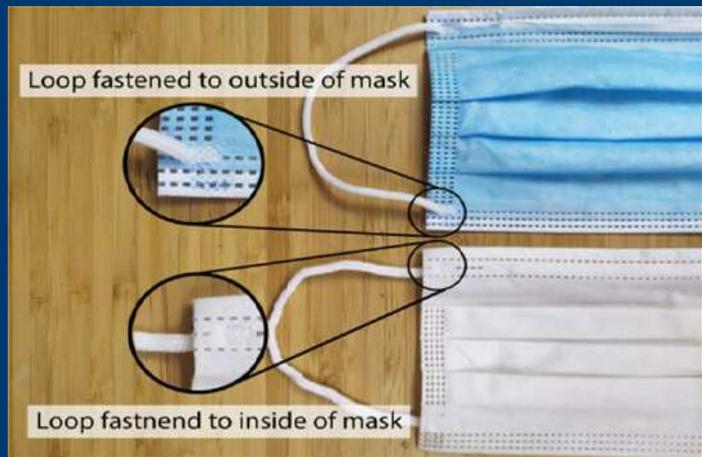
First of all, if you have the instruction manual then you should check it out. If not, or your surgical mask didn't come with any instructions, you can follow these simple rules:

1. **Colour goes on the outside**  
Typically, the fluid repellent layer of a surgical mask is coloured side. That means, the coloured side should face out. Think of it this way: You want to show off your colours!
- If your mask has the same colour on both sides, move on to the next rule.
2. **Soft side towards the face**  
Some masks have the same for both sides of the masks. Some even have no colour at all, like this one.



**DON'T USE MASK EAR LOOPS AS AN INDICATOR FOR MASK DIRECTION**

It may seem like a smart idea to use the straps as an indication of which way to wear a surgical mask. We suggest not to! In four out of the five surgical masks we checked, one had the straps that attached to the outside layer, and four had the straps that attached to the inside layer.

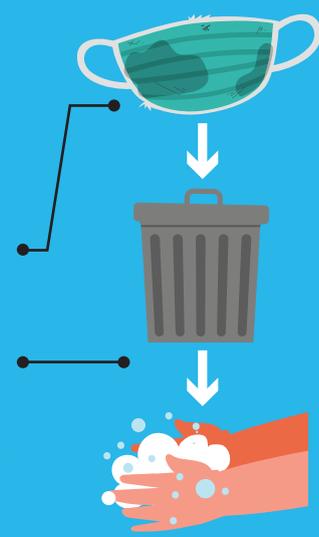


**HOW TO WEAR SURGICAL MASKS**

Following these simple steps will ensure your surgical mask is fitted properly:



1. Place the elastic bands around your ears.
2. Extend the surgical up above the nose and down to the chin. Make sure it fully covers the mouth, nose, and chin.
3. Bend the metallic strip at the top of the mask over nose bridge. The surgical mask should sit snugly to the face.
4. Avoid touching the surgical mask after putting it on. If you do, wash your hands afterwards.
5. Discard used masks in the garbage and wash your hands.
6. Standard practice is to replace surgical masks after each use. But if supplies are limited, replace masks that are dirty or damaged.





## TAHUKAH ANDA RISIKO RUANG TERKURUNG DISEDARI SEJAK ZAMAN TRAJAN?

Risiko kerja ruang terkurung telah ditulis sejak zaman Rom lagi, ketika itu Raja Kaisar Trajan dikatakan telah menjatuhkan hukuman kepada penjenayah untuk membersihkan pembentung. Pekerjaan tersebut telah dianggap salah satu pekerjaan yang paling buruk (Thackrah 1831).

Zaman tersebut sistem pembentungan telah diwujudkan bagi menguruskan kumbahan manusia. Sistem pembentungan pertama di Rom kuno, telah dibina pada tahun 800 hingga 735 sebelum masehi. Beberapa warganegara Rom yang mempunyai hak istimewa mempunyai jamban dalaman yang dihubungkan terus ke saluran pembuangan.

Kehadiran hazard atmosfera atau bau “gas berbahaya” pada zaman tersebut telah disedari apabila mereka menyatakan bau gas berbahaya telah masuk ke dalam rumah mereka. Lalu mereka telah membuat laporan dan bukti tersebut didokumentasikan dengan baik pada zaman tersebut.

Walaupun perkembangan semasa pekerjaan di dalam ruang terkurung ini telah meningkat dengan pesatnya sejak zaman Trajan dari segi persiapan teknologinya, tetapi kita dapati bahawa risiko yang sama masih berlanjutan dan mengakibatkan kecederaan dan kematian di tempat kerja setiap tahun.

Persoalannya bagaimana atmosfera berhazard ini tidak dapat dikawal dengan sebaiknya? Ini adalah isu yang perlu dijawab oleh orang yang bertanggungjawab di dalam memastikan keselamatan dan kesihatan di tempat kerja.

Hasil kajian yang dilaksanakan oleh NIOSH US (Manwaring et. al 1990) bagi mengenalpasti faktor risiko berpotensi menyebabkan kematian mendapati ketiadaan latihan, tidak ada prosedur bertulis kemasukan ruang terkurung dan kelemahan di dalam mengimplementasikan prosedur adalah antara faktor risiko berpotensi!



Oleh :  
**Haji Shahronizam Noordin**  
 Pengurus  
 Bahagian Penyebaran Maklumat.  
 NIOSH

# HAZARD OF FAKE OSH FACT IN SOCIAL MEDIA (INFODEMIC)

Social media are interactive computer-mediated technologies that facilitate the creation or sharing of information, ideas, career interests and other forms of expression via virtual communities and networks. The goal of occupational safety and health (OSH) is to foster a safe and healthy work environment and also protect workers, family members, employers, customers, and many others who might be affected by the workplace environment. However, misleading information in OSH can affect the industry including its productivity.

### Hazard:

1. Spread of misinformation include false fact related to OSH
2. Rumors appear in industry
3. Manipulation of information
4. Untrustworthy sources
5. Misleading content
6. Anybody can write or publish anything on the social media

### Effect:

1. Unable to meet important demands/ miscommunication
2. Can affect decision-making processes/wrong doing job
3. Hard to find reliable guidance
4. No quality control on what published
5. Lead to incident and accident

### Control Measure:

1. Trust/confirm with the authority e.g DOSH/NIOSH
2. Identify facts and evidence
3. Choose carefully the information
4. Compare with other source
5. Do not share if unsure

### Example

HOME **MALAYSIA** SINGAPORE WORLD MONEY LIFE EAT/DRINK SHOWBIZ OPINION SPORTS TECH/GADGETS DRIVE VIDEOS 精彩大马 PROJEKMM

## Covid-19: List of fake news on social media - April 4/ 1500 hrs

Saturday, 04 Apr 2020 05:46 PM MYT

KUALA LUMPUR — Following is the Communications and Multimedia Ministry Quick Response Team's rebuttal of fake news on the Covid-19 situation as detected by various authorities as at 3 pm today.

1. The Terengganu State Health Department (JKNT) denies claims that there were 30 Covid-19 positive cases in Durian Burung, Kuala Terengganu stemming from a 'tahlil' ceremony, stressing that as of April 3, 2020, no COVID-19 cases were detected in the area.
2. The Department of Occupational Safety and Health (DOSH) for Kuala Lumpur and Putrajaya denies claims of issuing a statement that all regular or routine inspections of machinery have been postponed until the end of the Movement Control Order (MCO) and that all machinery with expired certificates will be given a three-month extension automatically.

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- MALAYSIA** 17 hours ago Covid-19: Travel between Malaysia a...
- MALAYSIA** 16 hours ago Najib's son Nazri has to pay Inlan...

### Stop spreading fake news on condominium collapse

By Muhammad Hafsah Nasweeni / February 15, 2020 @ 4:33pm



The people have been advised to avoid spreading and sharing fake news over the incident involving the under-construction condominium in Taman Desa, which partially collapsed yesterday. - NSTP/YASWADI ALIAS

KUALA LUMPUR: The people have been advised to avoid spreading and sharing fake news over the incident involving the under-construction condominium in Taman Desa, which partially collapsed yesterday.

Kuala Lumpur police chief Datuk Seri Mazlan Lazim said the investigation was ongoing by the Department of Occupational Safety and Health to find out the actual cause of the incident.

Police, said Mazlan, was informed of the incident at 3.46pm yesterday by a man, who is the supervisor of the project.

"A search and rescue team comprising 27 police officers and policemen as well as 120 rescuers from the Fire and Rescue Department, and 20 people from Kuala Lumpur City Hall were dispatched to the scene to look for victims trapped in the rubble.

"The group was joined by a nine-member team from the Kuala Lumpur Hospital and Universiti Malaya Medical Centre and other government agencies.

"Preliminary investigation showed the incident occurred at 3.30pm and that the section that collapsed involved parts between the sixth level (construction of a swimming pool) and the first level of the condominium," said Mazlan in a statement today.

He said a total of 159 construction workers, including two Bangladeshi nationals, who were trapped during the incident were rescued during the operation.

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## NEW STRAITS TIMES

Tuesday, 7 July 2020, 11:34am

#SocialStanding - Recovery Movement Control Order

55 days 12 hours 25 minutes

More Covid-19 news

NEWS BUSINESS LIFE & TIMES SPORTS WORLD NSTV TV OPINION EDUCATION VOUCHERS GALLERY CHINI 2020

EXCLUSIVE CRIME & COURTS NATION GOVERNMENT / PUBLIC POLICY POLITICS

### Lam Thye: Newspapers can stem flow of fake news

By Bernama - August 16, 2019 @ 8:23pm



Veteran social activist Tan Sri Lee Lam Thye said authenticity owing to information derived from credible news sources, was a hallmark of newspapers or the print media. - NSTP/ASYRAF HAMZAH

KUALA LUMPUR: Although the new media is said to be the preference of the current generation of news readers, newspapers as part of mainstream media, have the ability to combat fake news.

Making this observation today, veteran social activist Tan Sri Lee Lam Thye said authenticity owing to information derived from credible news sources, was a hallmark of newspapers or the print media.

He said this was why the public continued to buy and read newspapers.

People nowadays receive online news through their phones or other electronic devices, but cannot tell whether the news is accurate, he said, adding that many of these stories later turned out to be false.

On Saturday, Malaysian National News Agency (Bernama) chairman Datuk Seri Azman Ujang called on Malaysians to continue buying and reading newspapers as a show of support for the monumental role played by newspapers in the development of Malaysian society and the country.

Speaking at the 45th anniversary celebration of the Bernama Workers' Union, Azman had said that the act of purchasing a newspaper at the cost of about RM1 to RM1.50 would serve as morale booster to journalists and other media staff to continue with their work, while striving to improve on news content.

Lee who is also the National Institute of Occupational Safety and Health (NIOSH) chairman, said newspapers represent valuable historical records.

He said some people took pains to collect them, and they could used as official documents and serve as

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Why? 4 top internet businesses take voltage exam after Covid-19 delay

TRENDING

BUSINESS 15 hours ago  
AirAsia in red with more than RM800m net loss

NATION 18 hours ago  
Water supply disruption in Selangor, Kuala Lumpur starting July 14

KUALON 19 hours ago  
Malaysia records 5 new Covid-19 cases today

CRIME & COURTS 20 hours ago  
Najib's son ordered to pay RM37.6 million in unpaid taxes

STORIES FROM SAYS

15 minutes ago

Example

### Consequences

**SEBENARNYA.MY**  
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**ADAKAH ANDA PASTI?**

- SUMBER**  
Lihat asal usul berita. Adakah ia boleh dipercayai?
- FAHAM**  
Faham apa yang anda sedang baca. Cari penjelasan.
- MENILAI**  
Cari keseimbangan. Pertimbangan sewajarnya.
- SELIDIK**  
Buat pencarian lebih mendalam menjangkau sumber awal.

**Tentukan kesahihan sesuatu maklumat sebelum sebar**

MCMC

**Penyebaran Maklumat Palsu & Berita Berunsur Hasutan**

KDN tidak teragak-agak untuk mengambil tindakan penguatkuasaan dengan menggunakan segala peruntukan perundangan sedia ada seperti Kanun Keseksaan, Akta Komunikasi dan Multimedia 1998 termasuk Akta Hasutan 1948

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# OSH HAZARD EVALUATION AND CONTROL TECHNOLOGY CENTRE (OSHECT)

Under the Eleventh Malaysia Plan (11th MP), NIOSH Malaysia has been funded RM 25 million by the Government of Malaysia (Ministry of Human Resources) to develop OSHECT. The development of OSHECT is from 2016 to 2020.

- Objectives:
1. To provide the capability and capacity of technical service as well as the quality of delivery and its effectiveness.
  2. To provide scientific evidence through upgraded and modernized testing facilities.
  3. To enhance research development by providing technical sharing.
  4. To preserve and strengthen relationship between government and industry.

ACCREDITED WITH ISO/IEC 17025:2017



ACCREDITED WITH ISO/IEC 17025:2017



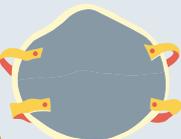
## OSHECT

### CHEMICAL HAZARDOUS LABORATORY (CHL)

1. WORKPLACE ENVIRONMENTAL SAMPLES
2. BIOCHEMICAL SAMPLES
3. MICROBIOLOGICAL SAMPLES

### DUST MASK LABORATORY (DML)

1. PENETRATION OF FILTER MATERIAL
2. CARBON DIOXIDE CONTENT
3. BREATHING RESISTANCE
4. EXHALATION VALVE
5. EXHALATION VALVE PULL
6. EXHALATION VALVE FLOW
7. FLAMMABILITY
8. TOTAL INWARD LEAKAGE
9. PRACTICAL PERFORMANCE
10. HEAD HARNESS
11. FIELD OF VISION
12. MATERIAL
13. COMPATIBILITY WITH SKIN
14. CLEANING AND DISINFECTION
15. DEMOUNTABLE PARTS
16. CLOGGING



### LIST OF LABORATORIES SERVICES UNDER OSHECT

### SCIENTIFIC EQUIPMENT CALIBRATION LABORATORY (SECL)

1. SOUND LEVEL METER CALIBRATION (AUTO)
2. SOUND LEVEL METER CALIBRATION (SEMI AUTO)
3. SOUND LEVEL METER CALIBRATION (ANECHOIC CHAMBER)
4. DOSIMETER CALIBRATION
5. CALIBRATOR CALIBRATION
6. MICROPHONE CALIBRATION (COUPLER)
7. MICROPHONE CALIBRATION (ANECHOIC CHAMBER)



### GAS DETECTOR CALIBRATION (GCL)

1. METHANE
2. HYDROGEN SULPHIDE
3. CARBON MONOXIDE
4. CARBON DIOXIDE
5. OXYGEN
6. CHLORIDE
7. AMMONIA
8. ISOBUTYLENE (VOC)

### PPE SIMULATION LABORATORY (PSL)

1. INTERACTIVE TRAINING SERIES - WORKING IN LABORATORY
2. INTERACTIVE TRAINING SERIES - WORKING AT HEIGHT
3. INTERACTIVE TRAINING SERIES - WORKING IN CONFINED SPACE



### OCCUPATIONAL HEALTH LABORATORY (OHL)

1. SPIROERGOMETRY ASSESSMENT
2. BODY COMPOSITION ANALYSIS
3. HEALTH MANAGEMENT SYSTEMS
4. GYMNASIUM



### FALL PROTECTION EQUIPMENT TESTING LABORATORY (FPETL)

1. STATIC STRENGTH TEST
2. DYNAMIC PERFORMANCE TEST
3. CONDITIONING TEST



### ENVIRONMENTAL ERGONOMICS LABORATORY (EEL)

1. HEAT STRESS TEST
2. HEAT STRAIN TEST
3. SWEAT INDEX TESTING
4. THERMAL COMFORT ASSESSMENT
5. WORKPLACE LIGHTING ASSESSMENT
6. OCCUPATION VIBRATION ASSESSMENT - WHOLE BODY VIBRATION TEST (WBV)
7. OCCUPATION VIBRATION ASSESSMENT - HAND ARM VIBRATION TEST (HAV)



### HUMAN ERGONOMICS ASSESSMENT LABORATORY (HEAL)

1. POSTURAL AND MANUAL HANDLING EVALUATION
2. FUNCTIONAL CAPACITY EVALUATION
3. FITNESS FOR WORK EVALUATION
4. BASIC PSYCHOSOCIAL ANALYSIS
5. ERGONOMICS PRODUCT / DESIGN VERIFICATION



### HYDROSTATIC TESTING LABORATORY (HRL)

MEASURE THE RATE OF EXPANSION OF THE TUBE UNDER WATER PRESSURE WHICH ULTIMATELY DETERMINE WHETHER THE UNIT CAN SAFELY HOLD THE AMOUNT OF PRESSURE IT IS RATED FOR



### FORENSIC ENGINEERING LABORATORY (FEL)

1. MICROSCOPIC EXAMINATION
2. METALLOGRAPHIC/
3. METALLURGICAL ANALYSIS
4. MECHANICAL TEST (VICKERS HARDNESS TEST)
5. 3D PROTOTYPE PRINTING



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CMC@NIOSH.COM.MY

# WATER SAFETY RESPONDER (WSR): THE NEW INNOVATION OF SKILLS

## INTRODUCTION TO DROWNING

### World Overview:

Drowning is the process of experiencing respiratory impairment from submersion/immersion in liquid; outcomes are classified as death, morbidity and no morbidity. Drowning is the 3rd leading cause of unintentional injury death worldwide, accounting for 7% of all injury-related deaths. In 2016, an estimated 320 000 people died from drowning, making drowning a major public health problem worldwide. In 2015, injuries accounted for over 9% of total global mortality.

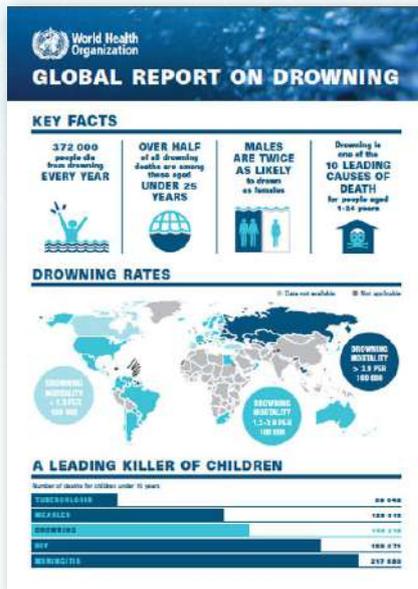


Fig. 1 ( Global Report on Drowning-WHO)

Referring to Centers for Disease Control and Prevention, National Centers for Injury Prevention and Control (NCIPC) reports, from 2005 to 2009 there was an average of 3,533 fatal unintentional drowning (non-boating related) annually in the United States —about ten deaths per day. An additional 347 people died each year from drowning in boating- related incidents. Based on the statistic provided by WHO, drowning is the one of related-to-work accidents that could occur but we as a workers miss-judge it as just a normal domestic accidents.

### Malaysia Overview:

As for Malaysia, we also are facing the same problem as the world does in drowning cases. As Malaysia geographical covered with waters, drowning cases potentially could happen anywhere. An article from NST Online, a study by the Perak Clinical Research Centre showed that about 500 people, mostly youth drowns in Malaysia annually making drowning the second cause of death among those between the ages of 1 and 18. The study also found that in the first nine months. In 2017, 31 children between the ages of 2 and 9 drowned in hotel and theme park swimming pools in Malaysia, with 75 per cent of victims being below the age of 5.

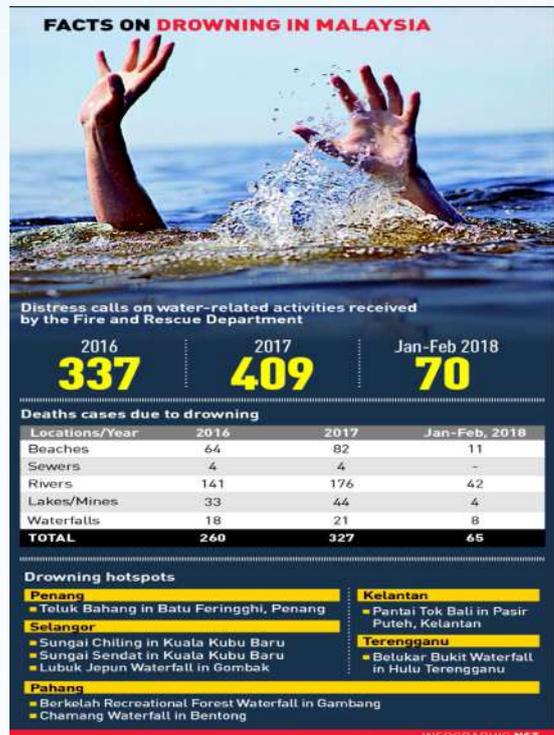


Fig. 2 (Drowning Case in Malaysia-NST)

Based on the statistic, each year the drowning cases increased gradually and mostly happen at public places and at tourism attractions area. What about working area such as hotels, resorts and even spa?

## Risk Factor Causing Drowning

Based on WHO studies and reports, there are few risk factors that we can conclude when drowning cases occur:

### 1. Age

The Global report on drowning (2014) shows that age is one of the major risk factors for drowning. This relationship is often associated with a lapse in supervision. Globally, the highest drowning rates are among children 1–4 years, followed by children 5–9 years. In the WHO Western Pacific Region children aged 5–14 years die more frequently from drowning than any other cause.

### 2. Gender

Males are especially at risk of drowning, with twice the overall mortality rate of females. They are more likely to be hospitalized than females for non-fatal drowning. Studies suggest that the higher drowning rates among males are due to increased exposure to water and riskier behavior such as swimming alone, drinking alcohol before swimming alone and boating.

### 3. Access to water

Increased access to water is another risk factor for drowning. Individuals with occupations such as commercial fishing or fishing for subsistence, using small boats in low-income countries are more prone to drowning. Children who live near open water sources, such as ditches, ponds, irrigation channels, or pools are especially at risk.

### 4. Flood Disasters

Drowning accounts for 75% of deaths in flood disasters. Flood disasters are becoming more frequent and this trend is expected to continue. Drowning risks increase with floods particularly in low and middle-income countries where people live in flood prone areas and the ability to warn, evacuate, or protect communities from floods is weak or only just developing.

### 5. Travelling on Water

Daily commuting and journeys made by migrants or asylum seekers often take place on overcrowded, unsafe vessels lacking safety equipment or are operated by personnel untrained in dealing with transport incidents or navigation. Personnel under the influence of alcohol or drugs are also a risk.

### 6. Other Risk Factor

There are other factors that are associated with an increased risk of drowning, such as:

- lower socioeconomic status, being a member of an ethnic minority, lack of higher education, and rural populations all tend to be associated, although this association can vary across countries;
- infants left unsupervised or alone with another child around water;
- alcohol use, near or in the water;
- medical conditions, such as epilepsy;
- tourists unfamiliar with local water risks and features;

## Method of Intervention

There are many actions to prevent drowning. Installing barriers (e.g. covering wells, using doorway barriers and playpens, fencing swimming pools etc.) to control access to water hazards, or removing water hazards entirely greatly reduces water hazard exposure and risk.

Community-based, supervised child care for pre-school children can reduce drowning risk and has other proven health benefits. Teaching school-age children basic swimming, water safety and safe rescue skills is another approach. But these efforts must be undertaken with an emphasis on safety, and an overall risk management that includes a safety-tested curricular, a safe training area, screening and student selection, and student-instructor ratios established for safety.

Effective policies and legislation are also important for drowning prevention. Setting and enforcing safe boating, shipping and ferry regulations is an important part of improving safety on the water and preventing drowning. Building resilience to flooding and managing flood risks through better disaster preparedness planning, land use planning, and early warning systems can prevent drowning during flood disasters.

Developing a national water safety strategy can raise awareness of safety around water, build consensus around solutions, provide strategic direction and a framework to guide multisectoral action and allow for monitoring and evaluation of efforts.

In Malaysia, Department of Occupational Safety & Health (DOSH) created new guidelines called Occupational Safety & Health Guidelines for Water Recreation Activities 2020. In this guideline mention how the organizations ensure the safety of their operations regarding the water activities excluding nature jobs that held at body waters. Thus, water recreation activities in tourism and hospitality industries fall under this guidelines jurisdiction.

**Water Safety Responder (WSR): The New Innovation of Skills**

There are many actions to prevent drowning. Installing barriers (e.g. covering wells, using doorway barriers and playpens, fencing swimming pools etc.) to control access to water hazards, or removing water hazards entirely greatly reduces water hazard exposure and risk.

In Malaysia, National Institute of Occupational Safety and Health (NIOSH) creating new evolution of skills training supporting the industries and public to minimize the impact on the statistics increment in drowning cases in Malaysia. NIOSH is currently offering the “WATER SAFETY RESPONDER program” tailored for water activities.

Water Safety Responder (WSR) program focusing to train the competent WSR to intervene any emergency emerge from any water activities including industrial water related incident. This program consists of three (3) level, Surface, On Water and Recovery. As for now, NIOSH only offer WSR-Surface or Basic Water Safety Responder and the other levels will be out soon in the market.

For this course, the participant will be able to describe the needs of Occupational Basic Water Safety to industries, to interpret the requirement of the Act related to water activities, in explaining the hazards in water activities, duties and responsibilities of Water Safety Responder (WSR) and to demonstrate the skill to rescue (surface rescue method) victim out from the water. The perfect combination of knowledge and skills in this course suits the need for a person in the company.

This module focusing on the legal requirements needed in water activity such as OSHA 1994 and the guidelines and other international requirements. In OSHA 1994 (Sec. 15-Responsibility of Employer) itself explained the requirement to an employer to ensure the safety, health and welfare the workers and other people in their workplace or premise. In this course also, the participant will be able to determine the hazards and the risk that might exist in their respective area of work such as slippery floor (physical hazard) and weather (environmental hazard).

Every job has risks. The importance of managing the risk at the workplace is the key to ensure the workplace is safe to work. In this course, the WSR will be able to manage the risk at their workplace especially water activity to comply with the standards required by the industry. The participant will be trained so that they are able to use the intervention checklist to manage the risk at their workplace.

**COURSEFILE BASIC WATER SAFETY (BWS) – 2 Days**

**DAY ONE**

TIME	HOUR	TOPIC	TRAINER
0830 – 0900	0.50	Registration	NIOSH
0900 – 1015	1.25	Topic 1: Introduction to water activities	
1015 – 1030		Tea Break	
1030 – 1145	1.25	Topic 2: Legal requirement	
1145 – 1300	1.25	Topic 3: Hazards in water activities	
1300 – 1400		Lunch	
1400 – 1530	1.50	Topic 3: Hazards in water activities (continued)	
1530 – 1545		Tea Break	
1545 – 1700	1.25	Topic 4: Control measure	
	4.50	END OF COURSE DAY ONE	

**DAY TWO**

TIME	HOUR	TOPIC	TRAINER
0900 – 1015	1.25	Topic 5: Personal Protective Equipment (PPE)	
1015 – 1030		Tea Break	
1030 – 1230	2.00	Topic 6: Duties & Responsibilities of Water Safety Responder (WSR)	
1230 – 1300	0.50	Assessment – Written (MCQ)	
1300 – 1400		Lunch	
1400 – 1500	1.00	Demonstration	
1500 – 1515		Tea Break	
1515 – 1700	1.75	Practical / Closing	
	4.50	END OF COURSE DAY TWO	

Fig. 3 (Schedule of WSR-NIOSH)



Fig. 4 (Risk Management Process)

It is important to ensure the WSR safe to perform the intervention as it is one of the criteria to ensure the success of risk management at the workplace. Thus, the WSR will be trained to prepare and donned their PPE and rescue equipment. The PPE and rescue equipment preparation depends on hazards and risk assessment occurs at their workplace. It might be differed depending on their activity and type of body waters.



Fig. 5 (Rescue kit)

### Water Safety Responder (WSR)

When it comes into skills, the WSR must be able to perform 2 types of surface rescue which is 1-1 surface rescue and 2-1 surface rescue method. The differences between these 2 techniques are in 2-1 surface rescue 1 of the rescue must able to swim to the victim to donned the floatation device and the surface rescuer will then pull-out the victim to shore. In this module, the participant will perform both rescue technique then they will be assessed by the assessor upon their skills and rescue techniques.



Fig. 6 (Throwline Training)



Fig.7 (Buoy-Throw Training)

### Conclusion

Many options of aquatic education are practised in the name of water safety but not all are equally oriented to drowning prevention. Some have not addressed all the elements to enhance the skills. As we have seen, skill alone is often insufficient. This explains why good swimmers might drown. Perhaps the other missing link could be lack of knowledge emphasis. The complex elements described here is often negligence and it could be the key which drives into high drowning statistics.

These elements should combined and form a better solution. When one or more of the elements is missing, the consequences can be lethal. Some may find teaching swimming skills very enjoyable but coaching the other elements could be more challenging. This needs to be highlighted. Other factors need to be considered in addition to skills, knowledge of risk factors should be an important part of all aquatic teach educators. The most important factor falls to the presentation skill and techniques in conveying the messages must be well develop and disseminated not only to the adult but also to young children.

AUTHOR:

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MODULE DEVELOPER OF WATER SAFETY RESPONDER PROGRAM (WSR)

NIOSH SABAH REGIONAL OFFICE

## NIOSH MENANDATANGANI *LETTER OF APPOINTMENT* DENGAN JOHOR PETROLEUM DEVELOPMENT CORPORATION (JPDC)



**B**andar Baru Bangi : 18 Ogos 2020 - NIOSH telah menandatangani Letter of Appointment dari Johor Petroleum Development Corporation (JPDC) bagi melaksanakan pelbagai jenis latihan persijilan keselamatan dan kesihatan pekerjaan.

Program latihan ini akan dijalankan oleh NIOSH Wilayah Selatan (Johor Bahru) yang akan memberikan manfaat kepada warga negeri Johor. Kerjasama strategik kedua-dua organisasi ini akan diperluaskan lagi kepada pelbagai program pembangunan sumber manusia. Sebagai sebuah agensi milik

kerajaan, NIOSH dan JPDC mengambil langkah proaktif di dalam merealisasikan peranan kerajaan di dalam melahirkan tenaga kerja mahir semasa dan masa depan.

Majlis ini dihadiri oleh Pengarah Eksekutif NIOSH, Hj Ayop Salleh dan Shamsul Nizam Abdul Rahman, JPDC Senior Associate Industrial Manpower. Turut hadir adalah Mejar Hj Hanif Maidin, Setiausaha Eksekutif NIOSH; Khairunizam Mustapha, Pengurus Besar Jabatan Rundingan dan R&D NIOSH dan pegawai-pegawai NIOSH.





## SEMINAR PEMATUHAN AKTA KESELAMATAN DAN KESIHATAN PEKERJAAN 1994 KEPADA SEKTOR AWAM DI WILAYAH UTARA

**Pulau Pinang: 11 Ogos 2020** - Berlangsung Seminar Pematuhan Akta KKP kepada Sektor Awam yang dijalankan di Hotel The Wembley, Pulau Pinang. Majlis Perasmian telah dirasmikan oleh Yang Dihormati Ahmad Rizal Mohd Hanafiah, Timbalan Setiausaha Kerajaan (Pengurusan) Negeri Pulau Pinang. Pada majlis tersebut, Khairunnizam Mustapa, Pengurus Besar *Education and Training Department & Regional Office (ETDRO)* telah menyampaikan Ucapan Aluan bagi mewakili pihak Pengurusan Atasan NIOSH.

Turut hadir adalah Tuan Haji Jaafar Haji Leman, Pengarah JKPP Negeri Pulau Pinang serta Chiam Hong Lan, Timbalan Pengarah PERKESO. Topik 1 & 2 disampaikan oleh Eksekutif *Northern Regional Office (Penang)-NRO*, Wan Nahar, topik 3 disampaikan oleh Tenaga Pengajar Dalam NRO, Fakhru Razi dan Topik 4 disampaikan oleh Pengurus NRO, Rosliza Osman. Penyertaan seminar ini mencatatkan kehadiran peserta seramai 77 orang.

**Ipoh Perak: 13 Ogos 2020** – Telah berlangsung Seminar bertajuk *Empowering OSH In Industry* di Hotel Impiana, Ipoh, Perak. Yuran bagi seminar ini adalah sebanyak RM 120/pax dengan kehadiran peserta adalah seramai 45 orang.

Topik 1 dan 2 disampaikan oleh Pakar Teknikal ETDRO, Ruzita Shariff, Topik 3 disampaikan oleh Pegawai SOCSO dan Topik 4 disampaikan oleh Pegawai NIOSH Certification Sdn Bhd (NCSB), Ahmad Shafiq Muhammad.

Pihak Sekretariat dan Hotel bekerjasama bagi memastikan pematuhan terhadap SOP COVID-19 di kalangan peserta yang hadir. Penjarakan Fizikal dan pematuhan SOP COVID-19 amat diutamakan dalam norma baharu penganjuran seminar pada kali ini. Semoga semua yang terlibat dalam seminar ini dilindungi serta dapat dihindari dari penularan COVID-19 yang sedang melanda Negara.



## SEMINAR PEMATUHAN AKTA KESELAMATAN DAN KESIHATAN PEKERJAAN 1994 KEPADA SEKTOR AWAM DI WILAYAH SELATAN

**Johor Bahru: 04 Ogos 2020-** Seminar Pengenalan Pematuhan Khas Akta KKP 1994 kepada Sektor Awam dalam suasana norma baharu berlangsung di Mutiara Hotel Johor Bahru. Inisiatif ini adalah salah satu komitmen NIOSH di dalam membantu sektor awam bagi memperkasakan aspek keselamatan dan kesihatan pekerjaan. Seminar bersiri ini adalah siri ke 5 setelah bersambung selepas ditangguhkan akibat pandemik COVID-19.

Bermula di Kuantan, Pahang; Kota Bharu, Kelantan; Kuching, Sarawak dan Kota Kinabalu di Sabah, jelajah seminar ini adalah bagi memupuk kesedaran di kalangan penjawat awam perihal pentingnya mengurus tempat kerja dari elemen risiko dan bahaya pekerjaan. Siri jelajah seminar ini diadakan di Melaka dan Pulau Pinang.

Norma baharu bagi penganjuran seminar kali ini dengan menghadkan kehadiran peserta seramai 70 orang. Seminar ini disampaikan oleh Pengurus Besar Jabatan Perundingan, Penyelidikan dan Pembangunan (CRDD) NIOSH iaitu Khairunnizam Mustapa menjadi pembentang bagi Topik 1 & 2 manakala Pengurus NIOSH *Southern Regional Office (Johor Bahru)-SRO*, Haji Muhammad Zaeem Mokhtar menyampaikan Topik 3 dan Eksekutif NIOSH SRO Ummu Sufiah menyampaikan topik 4.

Pada tarikh yang sama turut menganjurkan seminar bertajuk *Empowering OSH In Industry* yang berlangsung di Dewan Sri Johor, NIOSH Wilayah Selatan, Johor Bahru. Yuran bagi seminar ini adalah sebanyak RM 120/pax dengan kehadiran peserta adalah seramai 50 orang.

Topik 1 disampaikan oleh Pegawai PSMB, Topik 2 disampaikan oleh Pengurus NIOSH SRO Haji Muhammad Zaeem Mokhtar, Topik 3 pula disampaikan oleh Pegawai SOCSO dan Topik 4 disampaikan oleh Eksekutif NIOSH SRO, Zuhairah Jamil.

**Pada 6 Ogos 2020** berlangsung Seminar Pengenalan Pematuhan Akta KKP 1994 kepada Sektor Awam di Hotel Hatten, Melaka. Kehadiran peserta adalah seramai 71 orang. Penyertaan seminar kali ini disertai oleh peserta daripada Pejabat D.Y.M.M Yang Di-Pertuan Besar Negeri Sembilan, Mahkamah Negeri Melaka, Pengetua dari Sekolah Menengah Kebangsaan sekitar Johor, Melaka dan Negeri Sembilan, Pengetua MRSM, Institut Perguruan serta Jabatan Kerajaan yang lain.

Seminar ini disampaikan oleh Pengurus NIOSH SRO Tuan Haji Muhammad Zaeem Mokhtar dengan topik 1 & 2 dan Eksekutif NIOSH Melaka iaitu Mohd Kashfullah Razali menyampaikan topik 3 & 4.

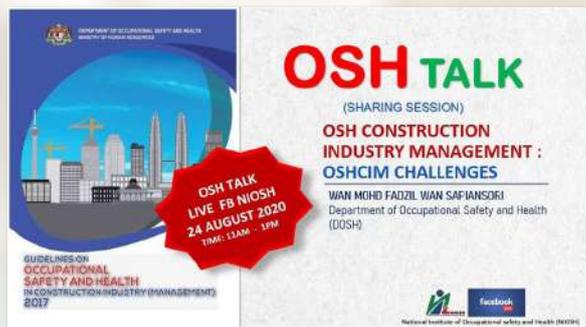
Pihak Sekretariat dan Hotel bekerjasama bagi memastikan pematuhan terhadap SOP COVID-19 di kalangan peserta yang hadir. Penjarakan Fizikal dan pematuhan SOP COVID-19 amat diutamakan dalam norma baharu penganjuran seminar pada kali ini. Semoga semua yang terlibat dalam seminar ini dilindungi serta dapat dihindari dari penularan COVID-19 yang sedang melanda Negara.

## OSH TALK SECARA ATAS TALIAN SEPANJANG PERINTAH KAWALAN PERGERAKAN PEMULIHAN (PKPP) 2020

Pada 24 Ogos (Isnin), NIOSH membawa perkongsian secara atas talian OSH Talk KKP di Facebook NIOSH (FB Live). OSH Talk ini berlangsung pada 24 Ogos 2020 (Isnin) jam 11.00 pagi. Topik yang dibicarakan berkaitan *OSH Construction Industry Management: OSHCIM Challenges* yang disampaikan oleh Wan Mohd Fadzil Wan Sapiansori dari Jabatan Keselamatan dan Kesihatan Pekerjaan (DOSH).

Pada 27 Ogos (Khamis) pula berlangsung OSH Talk secara atas talian di NIOSH FB yang disampaikan oleh Mohd Atif Solehuddin, Eksekutif bahagian Perundingan, Penyelidikan dan Pembangunan (CRDD) NIOSH dengan topik bertajuk *Compliance Study of Fall Protective Equipment to Malaysian Standard*.

Semoga program yang dijalankan ini dapat memberi manfaat berguna kepada masyarakat disamping dapat mengetahui lebih mendalam dalam bidang Keselamatan dan Kesihatan Pekerjaan (KKP) melalui sesi perkongsian ilmu pengetahuan oleh tenaga pengajar NIOSH dan DOSH yang berpengalaman sepanjang tempoh Perintah Kawalan Pergerakan Pemulihan (PKPP).



## MAKLUMAN PEJABAT BARU DAN PERPINDAHAN LOKASI PEJABAT BARU NIOSH



Dimaklumkan bahawa Pejabat NIOSH Wilayah Pantai Timur-Kota Bharu (ECRO-KBH) telah beroperasi penuh pada 17 Julai 2020 yang lalu bersempena dengan lawatan kerja Yang Berhormat Datuk Pengerusi NIOSH ke Pejabat NIOSH Wilayah Pantai Timur-Kota Bharu (ECRO-KBH). Pejabat NIOSH Wilayah Pantai Timur-Kota Bharu (ECRO-KBH) boleh dihubungi seperti butiran dibawah:

Institut Keselamatan dan Kesihatan Pekerjaan Negara (NIOSH),

### Wilayah Pantai Timur Kota Bharu (ECRO-KBH),

PT1155, Jalan Bendahara 3/36,  
Taman Bendahara, Pengkalan Chepa,  
16100 Kota Bharu, Kelantan.  
Tel: 09-7731710  
Fax: 09-7731711  
Emel: niosh.kelantan@gmail.com

Dimaklumkan bahawa pejabat NIOSH Wilayah Utara Pulau Pinang telah berpindah ke lokasi baru di Kepala Batas dengan alamat seperti berikut:

### NIOSH Wilayah Utara (Pulau Pinang)

Lot 8872, Jalan Bertam 2,  
MK 6, Bertam,  
13200 Kepala Batas,  
Pulau Pinang.  
Tel : 019 2299724  
Emel: penang@niosh.com.my



NIOSH Penang beroperasi di pejabat baru telah bermula pada 3 OGOS 2020.

# SURGICAL MASK (FACE MASK), N95 & CARBON DIOXIDE (CO<sub>2</sub>) ON HUMAN PERFORMANCE AND FITNESS

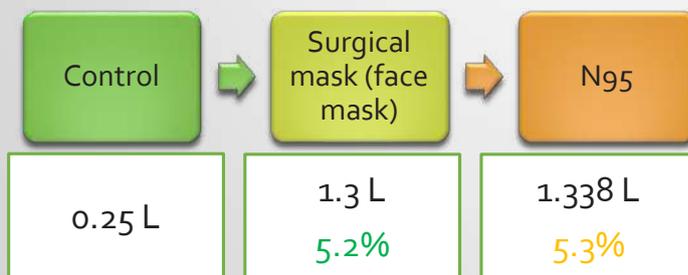


An assessment done in order to answer the speculation on the carbon dioxide in the exhaled air may compromise the health status among persons. The assessment done in respiratory consequences of **N95-type mask, surgical mask and no mask** (control). The comparison done between three condition.



Using **spirometry** as one of a tools to measure the percentage of **exhaled oxygen and carbon dioxide** in the highest intensity on a particular person may have reach based on the maximum heart rate using the Bruce Protocol (ramp test).

According to the Dhami et al., 2015 exhaled air consists of **78 percent nitrogen, 16 percent oxygen, 4 percent carbon dioxide** and potentially thousands of other compounds. The normal range of carbon dioxide in exhaled air is **4 – 5.3%**.



Breathing through surgical mask (face mask) and N95 mask materials have been shown to **impede gaseous exchange** and **impose an additional workload** on the metabolic system. From this assessment, the carbon dioxide concentration still in the normal range despite the highest performance intensity were achieve.

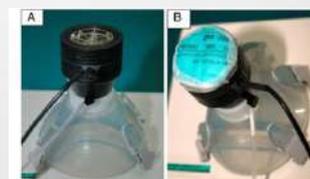


Control with no mask restriction



Surgical mask (face mask) tight fitting at the breathing outlet

N95 mask tight fitting at the breathing outlet



The benefits of using mask is to prevent serious emerging infectious diseases. It should be weighed against potential respiratory consequences.

Tong et al. Antimicrobial Resistance and Infection Control (2015) 4:48  
P.S.Dhami; G.Chopra; H.N. Shrivastava (2015). A Textbook of Biology. Jalandhar, Punjab: Pradeep Publications. pp. V/101.



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