Cases of Hand, Foot and Mouth Disease are on the Rise

In the past couple of months, increased cases of Hand, Foot and Mouth Diseases (HFMD) have been observed in our local community. Amidst institutions which experienced outbreaks, the Center for Health Protection (CHP) issued closure orders to two schools which encountered significant number of cases. From past experience, summer and autumn are the peak periods for this disease. In other words, the worst has yet to come. A daily update of the situation can be accessed from the following CHP site: http://res.chp.gov.hk/seb/files/hfmd_ev71_daily_update.pdf.

HFMD is caused by a group of viruses called enteroviruses. Common ones include Coxsackie A virus, EV 71, Echovirus, etc. Infectious viruses can be found in the nasal and throat discharges, saliva, blister fluid and stool of infected individuals, some of whom may be asymptomatic. Therefore, the disease can be transmitted by direct contact with the above-mentioned materials and via indirect contact with inanimate objects contaminated by these materials. While infections mostly occur in kids under 10 years of age, adults do get infected as well. The incubation period is 3 – 7 days. Typical symptoms include: fever, mouth sores and skin blisters on the palms and on soles. In some rare cases, the disease may progress to more serious illness, including meningitis, encephalitis, or paralysis. In Hong Kong, out of the thousands of cases of HFMD observed each year, there are about 50 cases of viral meningitis / encephalopathy / encephalitis cases found in association with enteroviruses. Infection leads to immunity via antibody formation. However, as HFMD is caused by a group of viruses, HFMD can occur more than once.

There is no specific treatment for HFMD, symptoms of pain and fever can be relieved by medication. There is no vaccine available for preventing HFMD.
The risk of infection can be lowered by practicing proper personal and environmental hygiene. Practicing good hand hygiene by frequent washing is crucial. For more information on hand hygiene and proper hand washing, access: http://www.cdc.gov/cleanhands/.

Never touch eyes, nose or mouth before washing hands. Do not forget to wash hands after going to bathroom. Use hand sanitizers with 80% Ethanol to disinfect hands if washing is not feasible (note: some products in the market contains 70% isopropyl alcohol which is not effective against enterovirus). Cover nose and mouth when coughing or sneezing. Avoid contact with infected individuals. Clean contaminated surfaces regularly and frequently. Maintain good indoor ventilation to prevent build up of pathogens. Keep students with symptoms at home and away from school to avoid spreading the virus around.
Energy Saving in Laboratories

HKUST has more than 400 rooms of different sizes that are classified as "laboratories". Among these laboratories, there are more than 200 fume hoods, which indicate use of hazardous chemicals. Even though laboratories only occupy about 25% of our Academic Building in terms of floor space, the energy usage in laboratories is many times higher than non-laboratory areas.

Perhaps the most important reason is the amount of air conditioning is much higher in laboratories. In general, around 5 times more fresh air is supplied to laboratories compared with other areas, to ensure adequate ventilation in laboratories. Fresh air must be cooled and dried (i.e. conditioned) before it is supplied to different parts of the building, which means for the same floor area, laboratories will use several times more energy in air conditioning compared with non-laboratory areas. On top of that, certain research equipment and set-up use a large amount of electricity.

Back in 1994, a campus energy saving campaign was launched at HKUST. You can still see signs of these early efforts, such as the metal plates in lift cars and lift lobbies reminding people to use the stairs, stickers on light switches reminding users to switch off when leaving the room, etc. Behind the scene, Facilities Management Office (FMO) has also undertaken a series of projects to cut energy expenditure through innovative measures such as performance contracting. Over the years, approximately 12% reduction of our electricity usage has been achieved, and these efforts are being continued to attain further saving and hence reduction of the carbon footprint of our campus. In recent years, energy saving becomes a crucial and indispensible element in the design of new campus buildings.

As for laboratories, since many safety devices also run on electric power, energy saving must be carefully balanced with safety needs to ensure protection of laboratory users. Laboratory users should be familiar with the motion sensors installed in many fume hoods, which automatically reduce the inward air flow velocity so as to decrease the amount of exhausted air when no one is working in front of the fume hood. This was made possible by a fast acting control valve that can boost up the air velocity within a matter of seconds when the motion sensors detect someone in front of the hoods so that protection of the user would not be compromised. These motion sensors and the associated control system achieved significant energy saving in laboratory in the past years; however, we believe more can be done.

There are two major aspects on energy saving in laboratories. First of all, it is the design of laboratories, especially the ventilation system. As in the rest of the campus building, a substantial amount of energy is spent in air conditioning. For laboratories, the fume hoods are a major sink of conditioned air. Since the purpose of the fume hood is local exhaust ventilation for processes involving volatile or toxic chemicals, the air exhausted from fume hoods cannot be re-circulated. Considering the long operating hours of many fume hoods, they become a significant energy sink. Therefore one major potential area of laboratory energy saving is to find ways to reduce the amount of conditioned air being exhausted from fume hoods. There must be a careful balance because adequate air flow is needed to ensure containment of hazardous chemicals and protection of fume hood users.
With the advancement of technology and scientific research, it is recently realized that substantial energy saving can now be achieved by modifying the fume hood ventilation setting. The operation parameters of fume hoods are usually governed by industry standards. The American National Standards Institute and American Industrial Hygiene Association published an ANSI/AIHA Standard Z9.5 Laboratory Ventilation which is widely used in laboratories in North America and different parts of the world, including us. The 2010 version of ANSI/AIHA Standard Z9.5 will, based on recent research findings, allow a much reduced minimum fume hood air flow setting, which is more in line with standards in European countries. This will create a great opportunity for laboratories like ours to achieve substantial energy saving. On the other hand, there are various new products called low-flow fume hoods which can achieve acceptable chemical containment at a lower air flow rate by new fume hood aerodynamic design and/or additional fan units installed in individual hoods to provide supplementary containment air flow. Health, Safety and Environment Office (HSEO) and FMO are actively looking into employing these new standards and equipment in our new laboratory building being planned, as well as retrofitting/readjusting fume hoods in our existing Laboratory Block.

The other very important aspect of laboratory energy saving is the practice of laboratory users. When users are not operating experiments inside fume hoods, the best practice both in terms of safety and energy saving is to lower the sash completely. The sash is made of an impact-resistant polymer; it is an effective barrier between laboratory users and hazardous chemicals inside the hood. A completely lowered sash also allows the hood to run at the minimum air flow setting, which will achieve substantial energy saving. This is even more so with the implementation of the new ANSI/AIHA Z9.5 minimum hood air flow setting. When users do not need to use fume hoods, turning them off will of course save even more energy. Some users get into an undesirable habit of using fume hoods for chemical storage, which is costing a lot of energy wastage. The proper practice is to store hazardous chemicals in suitable storage cabinets. Some of these cabinets are ventilated but at a much lower air flow rate, and therefore reduce the wastage of conditioned air. Other than saving through better practice in using fume hoods, the very fundamental and simple act of turning off equipment or lights that are not in use can always help achieve further saving. In recent night inspections of laboratories conducted by HSEO staff, it was noticed that many laboratories were empty during the night but all the lights were left on. We certainly understand sometimes experiments need to be continued over night, and some users optimize their use of laboratory space and equipment by “working night shifts”. However, instead of leaving everything on all the time, turning lights and other appliances off when they are not being used is still an effective and simple way to save energy.

In its last meeting, the Environmental Health and Safety Committee, chaired by VP-AB and attended by representatives from all three branches, approved an initiative to promote laboratory energy saving. HSEO and FMO have launched and will continue to launch various initiatives towards this goal. Most importantly, we need all laboratory users to join in to work towards this goal. If you have any good ideas on the topic of laboratory energy saving, please feel free to share with us by sending an email to safety@ust.hk.
Let us work together to bring our campus energy saving campaign into our laboratories!
Fostering a culture of safety at work is a critical part of health and safety management in the campus community. Studies have shown that a high percentage of major accidents are attributable in some degrees to human error. The problem with people is that their attitudes towards safety at work are inconsistent. Unintentional mistakes, lapse of attention or wrong perception of risk are common errors. Substantial efforts should be made by staff members at management and supervisory levels to ensure safe operations at their workplaces. In reality, many departments/offices spend a lot of time and efforts trying to improve safety. However, only providing reliable tools/equipment and maintaining an effective safety management system to administer safety are not enough.

It is important to understand that the greatest contributor of accidents is human factor. A positive safety culture could help to change individual's personal beliefs, attitude and behaviour towards safety in a positive way so as to avoid accidents and ill health at work. To address the importance of human factors in accident prevention, Health, Safety and Environment Office (HSEO) launched the “Contractor Safety Seminar” on Wednesday, 12 May 2010. There were 65 representatives nominated by contractors of the University and 25 staff members from our departments/offices attending the seminar. In the seminar, Dr C M LI of HSEO presented the talk on “Paradigm Shift in Accident Prevention” and the guest speaker, Mr Yu Yiu-kwong of the Labour Department of HKSAR, introduced “General Duty of Care in Legal Context” to participants.

The University deeply appreciates our contractors’ efforts in maintaining high standard of safety in the campus community. Three contractors from Campus Services Office received the “Contractor Safety Performance Award – 24 consecutive months injury-free”. Awards were presented by Prof J Kwan, Director of HSEO in the seminar. The following are the winners:-
In fostering a positive safety culture at your workplaces, you are encouraged to change the management approach from *top-down control* to *bottom-up involvement* in managing safety!

**Winner:** The Commercial Press (HK) Ltd. (Bookstore)

**Winner:** Mega Hair (Salon)

**Winner:** Delicious Food Company (Seafront Cafeteria)
University students may always feel too busy to get enough sleep, exercise, and eat right. So here are some tips for you to stay healthy in university:

Get enough sleep
Students usually have a busy schedule in their university life and they tend to sleep less. Some may sleep only a few hours per night. With insufficient sleep, you're not going to be able to concentrate well enough to get the most out of your classes. It is recommended that you should stick to a regular sleeping pattern, align your sleeping schedule with normal resting hours by getting to bed before midnight.

Exercise
Just like everything else, you have to schedule time for exercise. Try to exercise twice during the week and once during the weekend. It can reduce your stress levels. Try something that you enjoy doing, like jogging, swimming or yoga.

Avoid relaxing with alcohol
Some students rely on heavy drinking to unwind after a hard day of studying. However, excessive drinking can have serious effects to your health. It can lead to addiction or more serious health problems.

Learn to relax
University students may have a lot of stresses like assignments and examinations, etc. You need to find some effective methods to cope with stress. When you feel stressed, deep breathing exercises can help relief it. Moreover, you may do some exercises or sign up for some yoga classes. There are many ways to alleviate the effects of stress and tension.

Seek for counseling if you need it
Students may frequently suffer from anxiety, depression or homesickness. The student counseling service is well equipped to help with these situations.

Get regular check-ups
Regular health check-ups can certainly help find health problems early and your chances for cure are higher.

Have safe sex
Try to protect yourself and your partner from sexually transmitted diseases (STD) such as Chlamydia, gonorrhea, genital herpes, genital warts and HIV. Condoms can help prevent contracting and spreading most STDs. Condoms prevent bacteria and viruses found in semen, vaginal fluids and blood from coming into contact with your body. It's important to always use a condom correctly each time. Never use the same condom twice.

Get vaccination
Vaccination is one of the effective ways in preventing illnesses or diseases. Various vaccination programs are available
on campus every year such as the Hepatitis and Influenza Awareness Campaign, the Cervical Cancer Awareness Campaign, etc. Students may receive vaccination at a discounted price. For more details, please contact the university clinic at 2358 6670 or send email to hkustclinic@pacifichealthcare.com.hk

**Make Use of Your Campus Clinic**

If you encounter any medical problems, try to make use of our medical clinic. You can visit the following website for details of the campus clinic:

http://www.ab.ust.hk/hseo/Clinic/faq.htm

(This article is written by Health Concepts Ltd., the HKUST’s medical clinic operator.)
Family Safety Tips

It is summer time again! Preparing for a family trip requires good planning before leaving home. Once you've decided where you're going, where you'll stay and how you'll get there, you must also plan for the safety of your home and family while you are away.

Following are suggestions that will help to ensure that your trip is a safe one.

Some tips on what to do/NOT to do:

1. Before you leave, inform your relatives and friends of your itinerary so that you can be contacted when necessary.

2. Don't forget to pack sufficient medicines to meet specific needs of your family members. If you are carrying prescribed drugs, make sure that you carry them in their original packaging and that you have a copy of the prescription with you.

3. Clean out your wallet/purse before you go, take only essential credit cards. Use credit cards or traveler checks instead of cash where possible.

4. Pack as lightly as possible. Lots of heavy, cumbersome bags will slow you down and make you more vulnerable to being robbed. Expensive designer luggage can draw unneeded attention to your belongings. Pack your things in inconspicuous bags.

5. Keep a separate record of the contents of checked luggage and keep anything of importance/value such as medicine and jewelry in a carryon bag that stays with you.
6. Have someone look after the baggage while you are checking in.

**It is essential to make your residence appear as though you have never left:**

1. Stop or suspend all deliveries including mail and newspapers, or ask a trusted neighbor, relative or friend to pick them up each day.

2. Install timers on several household lights so they go on at different times.

3. Ask a neighbor to change frequently the parking location of your car.

**While you are traveling:**

1. Do not display expensive jewelry, cameras, money and other items that will draw attention and make you a target for a pickpocket or a thief.

2. Carry your purse close to your body, in front of you. Keep your wallet in an inside pocket, NOT in your back/hip pocket! Consider wearing a ‘fanny pack’ in front of you, or a money belt or a pouch under your clothes.

3. If you carry a purse/whatever on a strap over a shoulder, keep a hand on it!

4. Find the floor fire exits as soon as you get to your hotel room. Get yourself familiar with the evacuation procedures.

5. Count your cash right at the ATM or exchange counter but don’t walk away and count in public places.

6. Keep an eye on your children at all times. Make sure they know where they are staying – name, address and phone number. This may seem callous or impersonal, but you may wish to consider a ‘tag’ for each child, similar to a wrist tag used in hospitals to identify patients. Teach children what to do if they become separated and that they should not accept rides from strangers.

7. Use well-lighted, well-traveled streets at all times, check your route on a map in advance.

8. If you drive in other countries, always lock your car when it’s parked and when you are inside too, even if the stop is brief. Keep valuables out of light, preferably locked in the trunk. Don’t advertise that you’re tourists by leaving maps and guidebooks on the seats or dashboard. Keep them on the floor or in the glove box.

**If you are traveling to any foreign country:**

1. Get to know more about the crime situation and vaccination requirement in the places your are going to visit. For health-related risks during outbound travel, you can visit the relevant website of the Department of Health [http://www.travelhealth.gov.hk/eindex.html](http://www.travelhealth.gov.hk/eindex.html).

2. Check the country’s political and social climate. You can check the Hong Kong Outbound Travel Alert (OTA) issued by the Security Bureau of HKSAR [http://www.sb.gov.hk/eng/ota/](http://www.sb.gov.hk/eng/ota/). The Hong Kong OTA System aims to help people better understand the risk or threat to personal safety in travelling. When there are signs of threat in a place that may affect the personal safety, the Security Bureau will assess and consider the need to issue an
OTA taking into account factors such as the nature, level and duration of the threat. Hong Kong residents who need assistance may call the 24-hour hotline (852) 1868 of the Immigration Department.

3. Make sure you have purchased travel insurance and cover all your needs. The existence of OTA may affect the coverage of an insurance policy. Individuals should find out the relevant arrangements to suit individuals' need.

4. Make photocopies of all family passports, keep these copies separate from the actual passports and keep them safe. You can consider uploading the information to your mail server.