MIND over BODY

Most people regard their homes as a safe haven but are unaware their sanctuaries also house millions of germs. NG JING YNG reports.

DANGER ZONES

Even before the Influenza A (H1N1) virus hit Singapore earlier this year, people were already scrambling to protect themselves from being infected. It made sense, since prevention is better than cure.

So, the sale of items such as surgical masks and hand sanitisers reportedly soared more than 20 times as compared to pre-H1N1 days. While it is wise to use these items when one is outdoors or in high-risk areas, there is plenty to be done at home too.

Many studies have shown that the home harbours germs aplenty. These areas range from the computer keyboard to the toilet flush handle. Germs abound too when a family member is sick and when the bugs are brought home from outdoors.

Germs are micro-organisms or microbes. These tiny living cells that can be seen only under a microscope include fungi, bacteria and viruses.

In a 2007 study done in the United States, the toilet bowl ranked No. 1 for the most number of germs. Each square inch (6.45 square cm) of the throne has some 1.2 million bacteria. Even the lowest-ranked item, the computer mouse, has 50 bacteria per square inch.

Dr Chng Shih Kiat, the deputy medical director of Raffles Medical, said viruses such as the influenza bug can survive on non-porous surfaces for up to a few hours. Hence, doorknobs and other frequent contact surfaces are easily contaminated, say, by unwashed hands.

Dr Ling Moi Ling, the director of infection control at Singapore General Hospital, said everyday things in the house that harbour germs include telephone handsets, TV remote controls and door handles.

She added that germs thrive under moisture and heat and some even survive in the absence of oxygen.

Adjunct associate professor Raymond Lin, head of the Division of Microbiology at National University Hospital, said that while germs will always exist in the home, basic hygiene principles are easy to implement – always wash your hands and clean the home regularly.

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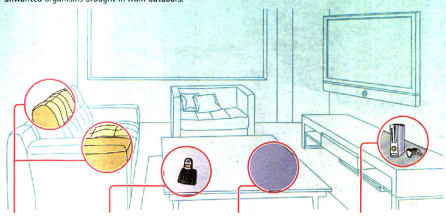
LIVING ROOM

As it is often the first point of contact when someone returns home, it is prone to having unwanted organisms brought in from outdoors.



On the sofa
COMMON GERMS: ***Staphylococcus*** **bacteria and dust mites**
PREVENTIVE TIPS: Dry clean, sun or steam clean the sofa regularly.

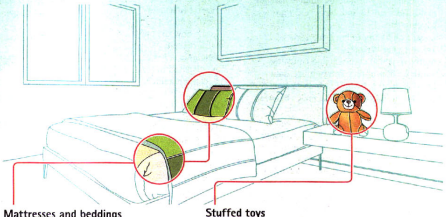
The telephone
COMMON GERMS: ***Rhinovirus*** **and the** ***Pseudomonas*** **bacteria** are spread directly when a person touches an object.
PREVENTIVE TIPS: Regular housekeeping like wiping the phones and making sure one's hands are clean before picking up the phone.

At the dinner or coffee table
COMMON GERMS: ***Rhinovirus and dust mites***
PREVENTIVE TIPS: Table tops should be cleaned preferably three times a day or at least once a day. The surface must be dried as damp surfaces attract contaminants.

TV and video game remote controls
COMMON GERMS: ***Rhinovirus*** **and** ***Pseudomonas***
PREVENTIVE TIPS: Clean and wipe the remote controls daily.

BEDROOM

As most of us spend one-third of our lives sleeping, it is crucial to keep our bedrooms clean and germ-free.



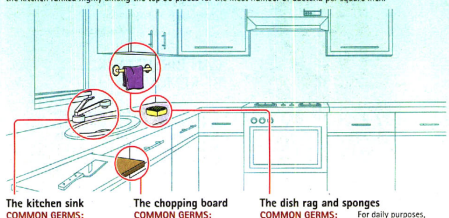
Mattresses and beddings
COMMON GERMS: ***Dust mites***
PREVENTIVE TIPS: Regular sunning of mattresses and pillows to reduce the proliferation of dust mites. Blankets should be washed with water heated to 70 deg C and left to be sun-dried.

Stuffed toys
COMMON GERMS: Made of fabric, stuffed toys tend to come into frequent contact with the nose and eyes. They often trap ***dust mites***.
Britain has reportedly banned stuffed toys in areas such as waiting rooms of clinics to prevent the spread of infectious diseases.

PREVENTIVE TIPS: Such toys should be washed or dry-cleaned regularly to keep them clean and dust-free.

KITCHEN

In a 2007 US study funded by disinfectant company Reckitt Benckiser, it was found that things in the kitchen ranked highly among the top 30 places for the most number of bacteria per square inch.



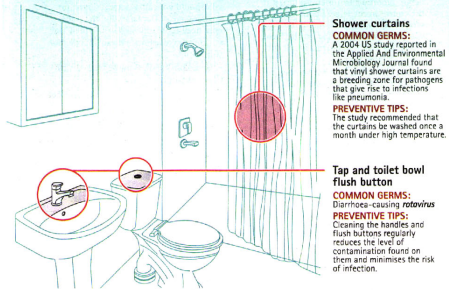
The kitchen sink
COMMON GERMS: This is frequently moist and provides a hideaway for tiny organisms. On a single square inch of the kitchen sink, over 867,800 bacteria were found.
PREVENTIVE TIPS: Food decay supports bacteria growth. Besides regular cleaning, the sink should be kept dry or disinfected with bleach.

The chopping board
COMMON GERMS: ***E coli*** **and** ***Salmonella*** **bacteria.** They are easily found in cracks and on the surface of the chopping board.
PREVENTIVE TIPS: Preparation of raw and fresh food should be done separately on different chopping boards. After every use, each board must be washed and kept dry.

The dish rag and sponges
COMMON GERMS: ***E coli*** **bacteria** colonies with over 50 million bugs can live on a single dirty sponge.
PREVENTIVE TIPS: The rag or sponge used to wipe surfaces contaminated with raw meat should not be used to wipe dishes.
For daily purposes, simple rinsing, wringing out and hanging up to dry will suffice.
Bacteria can be destroyed by heating the rag or sponge in the microwave oven after every use. However, note that metallic wiry sponges cannot be put in the microwave oven.

BATHROOM

One of the most visited places in the home, its floor is usually damp. Bathrooms should be washed at least twice a week with disinfectant and the floors flushed with water before leaving them to be air-dried.



Shower curtains
COMMON GERMS: A 2004 US study reported in the Applied And Environmental Microbiology Journal found that vinyl shower curtains are a breeding zone for pathogens that give rise to infections like pneumonia.
PREVENTIVE TIPS: The study recommended that the curtains be washed once a month under high temperature.

Tap and toilet bowl flush button
COMMON GERMS: Diarrhoea-causing ***rotavirus***
PREVENTIVE TIPS: Cleaning the handles and flush buttons regularly reduces the level of contamination found on them and minimises the risk of infection.

THE UNSEEN ENEMY

PSEUDOMONAS
Pseudomonas bacteria can cause an infection in the respiratory system or the urinary tract. These bugs favour moist areas such as sinks and swimming pools and can withstand standard levels of pool chlorination. They are usually transferred by water and skin contact.

DUST MITES
Dust mites can be found on fabric-covered items like mattresses. They live on dead skin cells and produce waste pellets. Dust mites and their waste pellets can trigger asthma.

RHINOVIRUS
This is a cold-causing virus that can stay infectious on surfaces for days. They can live up to three hours on the skin and on common objects such as doorknobs and telephone handsets. Transmission occurs when the eyes, nose or mouth come into contact with infected surfaces.

STAPHYLOCOCCUS
The bacteria are found on every person's skin and on common surfaces like light switches. They can also be passed onto surfaces by houseflies or through contaminated bedding. Some symptoms of staphylococcus infections are boils and skin blisters.

E. COLI
The bacteria comes from beef or raw produce that is cooked improperly. They spread very quickly during food preparation. The bacteria commonly cause diarrhoea and vomiting. For children under five, kidney failure and even death may result. E. coli can be transmitted by ingesting contaminated food or water or from contact with contaminated utensils.

SALMONELLA
The bacteria comes from sources like raw meat and eggs. It can be passed onto food surfaces. They are usually found during and after food preparation when food is contaminated and cause stomach pain and diarrhoea.

ROTAVIRUS
This virus causes infection upon contact with surfaces contaminated by faecal matter. Rotavirus can remain infectious in the environment for days. It is the most common cause of severe diarrhoea among children.

GRAPHICS: TANG WEE CHEOW
SOURCE: ALLIANCE FOR CONSUMER EDUCATION (WWW.STOPGERMS.ORG)