Coming clean about dirt – the battle on bacteria

A As a society we are now more hygienic than ever. Previous generations bathed once a week and used vinegar to clean their homes, whereas today most of us shower on a daily basis and use a range of extra-strong household cleaning products. We are taking cleanliness seriously in order to prevent the spread of viral pandemics like H1N1 (swine flu). The benefit of all this is a reduction in the amount of [1]**pathogens** we are exposed to, but many [2]**microbiologists** believe that our obsession with hygiene is detrimental to our health.

B Not only are our bodies and homes cleaned more often than ever, but the detergents and shower gels we use often contain powerful [3]**disinfectants**. Antibacterial agents also end up in food via products like pre-washed lettuce and the antibiotics used as [4]**growth-promoters** in farm animals. In addition, we take antibiotic drugs too frequently, often for minor illnesses. The cumulative effect of our war on germs is that common bacteria such as salmonella are mutating to develop strains resistant to antibiotics. Doctors are finding that, as bacteria become more resistant, formerly treatable conditions such as tuberculosis are becoming harder to treat and, in some cases, lethal. Overuse of antibiotics like penicillin can also kill the friendly bacteria living in our digestive system, allowing other more harmful bacteria to multiply and cause infection. Antibiotic abuse is becoming such a big problem that some governments have launched public-health campaigns to educate patients about the issue.

C Another consequence of our obsession with germs is a huge increase in allergies such as asthma and eczema in recent years. Exposure to microbes at a young age (such as those from faeces or the environment) helps regulate the immune system, reducing the body's tendency to develop allergic reactions against substances such as dust. This means that children who grow up in very [5]**sterile** environments may later develop severe immune responses when they eventually come into contact with these agents. Evidence supporting this hypothesis is that children growing up on animal farms or in the developing world have very low instances of asthma and other allergies because they are exposed to more diseases and germs.

D It's important to realize that medical experts are not suggesting we put an end to washing or that we move to Africa; in fact, they stress the importance of regular hand-washing in these times of global pandemic. What is clear, though, is that we need to find a balance between our high standards of hygiene and the unnecessary use of antibiotics and antibacterial products. So, if your little brother or sister asks for a pet, perhaps it's not such a bad idea!

1 Choose the best answer according to the text.

1 Taking antibiotics ...
   a has been banned by some governments.
   b can be harmful when you don't have a bacterial infection.
   c causes bacteria to mutate.
   d is harmful to your intestines.
2 Coming into contact with germs when you are a child ...
   a can cause swine flu.
   b should be avoided.
   c helps strengthen your immune system.
   d can be avoided by having pets.
3 Doctors suggest we ...
   a clean our homes less.
   b have pets at home to get exposure to germs.
   c stop taking antibiotics and wash our hands more.
   d only use antibacterial products when it's really necessary.

2 Match words 1–5 in the text to definitions a–e.

☐ a substances which help farm animals to produce more meat
☐ b agents such as bacteria or a virus that cause disease
☐ c extremely clean, with no bacteria
☐ d specialists in dealing with extremely small organisms
☐ e chemical products used to kill bacteria

3 Find words or phrases in the text that mean the same as ...

1 caused by a virus. _____
2 becoming different as a result of a genetic change. _____
3 types. _____
4 tiny organisms (often pathogenic). _____
5 the group of organs and cells that defends the body against disease. _____

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