



Beware: Thrift Store Vintage Clothes May Carry Infections!

Description

The demand for secondhand and vintage apparel has experienced a remarkable increase over recent years. Many consumers regard pre-owned fashion as a more economical and environmentally conscious method to enhance their wardrobes.

However, before eagerly donning your latest secondhand acquisition, it is imperative to ensure that you properly disinfect the item first. The reason behind this caution is that clothing can serve as a substantial reservoir for numerous [infectious pathogens](#).

The human skin is naturally [home to millions](#) of bacteria, fungi, and viruses collectively referred to as the skin microbiome. Consequently, every piece of clothing worn comes into intimate contact with these microorganisms.

Thrift Store Clothing Rack

A study of secondhand clothing revealed a range of pathogens within several samples tested. ([Anthony Sebbo/Unsplash](#))

The common microbes residing within the skin microbiome include *Staphylococcus*, known to cause staph infections, *Streptococcus*, associated with strep throat, yeast such as *Candida* (culprit of thrush), and viruses like [Human papillomavirus](#), responsible for HPV.

Each individual's skin microbiome is [distinctive](#), meaning what poses no threat to one person could potentially cause disease in another.

The Infection Risk of Used Clothing

As a known carrier of various disease-causing pathogens, clothing can harbor germs derived from the unique skin microbiome of the previous owner—especially if the garments were not thoroughly cleaned before sale. This contamination may include pathogens they carried when last worn.

Research indicates that clothing can [harbor a variety of infectious pathogens](#), such as *Staphylococcus aureus* (linked to skin and blood infections), bacteria like *Salmonella*, *E. coli*, *norovirus*, and *rotavirus* (leading to fever, vomiting, and diarrhea), as well as fungi responsible for athlete's foot and ringworm.



A [study](#) on secondhand clothing specifically marketed in a Pakistani market discovered the presence of *Bacillus subtilis* and *Staphylococcus aureus* in numerous samples, pathogens that can lead to skin and blood infections. Moreover, parasites capable of causing skin infections, such as dermatitis and scabies, have been found on secondhand garments as well.

The [microbes on the skin](#) can thrive on amino acids from sweat, as well as sebaceous oils produced by hair follicles, and proteins from skin cells—all of which are transferred onto clothing when we wear them.

Moreover, [studies show](#) that several pathogenic germs, including *E. coli*, *Staphylococcus aureus*, and *Streptococcus pyogenes*, can persist on clothing for extended periods, even up to months, under room temperature conditions. Bacteria on cotton or mixed-fiber fabrics can survive for as long as 90 days.

On polyester, however, these germs can endure for as long as 200 days, particularly thriving in humid environments. This highlights the necessity for storing clothing in dry conditions to limit bacterial proliferation.

While determining the exact risk of contracting an illness from secondhand clothing remains elusive—since no comprehensive studies have been conducted—[immunocompromised individuals](#) are likely at higher risk and should exercise additional caution before wearing such items.

Proper Washing Techniques for Secondhand Clothing

Most microbes require moisture to proliferate. Areas of the body that tend to retain moisture, such as armpits, feet, and genitals, harbor the highest concentrations of diverse microbial species.

Fabrics that come into contact with these regions are consequently more prone to contamination. Additionally, clothing can collect [remnants of food debris](#), potentially fostering further bacterial or fungal growth.

Thus, it is crucial to wash secondhand clothing rigorously to impede germ proliferation and minimize infection risk. One study investigating secondhand clothing contaminated with scabies parasites found that thorough washing [effectively eliminated all parasites](#) present.



It is advisable to launder newly acquired secondhand clothing using detergent in water heated to approximately [60°C](#). This temperature not only cleans visible dirt but also eradicates germs and inactivates pathogens.

Washing in cold water is generally insufficient for removing pathogens, so if a high-temperature wash is unfeasible, employing a laundry disinfectant is recommended to combat any lingering germs.

Initially, it is prudent to wash secondhand items separately from regular laundry to prevent cross-contamination. A practical method involves [soaking the garments](#) in a separate basin of hand-hot (not boiling) water combined with antibacterial laundry detergent for two to three hours, followed by a standard machine wash.

To ensure the complete elimination of any remaining pathogens, utilizing a hot tumble dryer or steam ironing treatment (around 60°C, if compatible with the fabric) is highly effective in eradicating bacteria, viruses, and parasite eggs.

Despite assurances from many secondhand sellers that they have laundered the items, it is prudent to perform your own washing. It is equally advisable to wash any new garments prior to wear.

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Vocabulary List:

1. **Pathogen** /'pæθ.ə.dʒən/ (noun): An organism that causes disease.
2. **Microbiome** /,maɪ.krəʊ'baɪ.əʊm/ (noun): The community of microorganisms living in a particular environment including the body.
3. **Contamination** /kən,tæm.i'nei.jən/ (noun): The action of making something impure by exposure to or addition of a poisonous or polluting substance.
4. **Proliferate** /prə'lif.ər.eɪt/ (verb): To increase rapidly in numbers; multiply.
5. **Thoroughly** /'θɜːr.ə.li/ (adverb): In an extremely attentive or careful manner.
6. **Eradicate** /ɪ'ræd.i.keɪt/ (verb): To completely destroy or put an end to something.

Comprehension Questions



Multiple Choice

1. What is a common reason consumers buy secondhand clothing?
Option: To support fast fashion brands
Option: To save money and reduce environmental impact
Option: To keep up with the latest trends
Option: To avoid wearing unique items
2. Why is it important to disinfect secondhand clothing before wearing?
Option: To make the clothing look brand new
Option: To remove any unpleasant odors
Option: To eliminate infectious pathogens
Option: To prevent fading of colors
3. Which of the following is not a common microbe found in the skin microbiome?
Option: Staphylococcus
Option: E. coli
Option: Streptococcus
Option: Candida
4. What can happen if secondhand clothing is not thoroughly cleaned before sale?
Option: It may lose its shape
Option: It can develop a foul odor
Option: It can harbor disease-causing pathogens from the previous owner
Option: It may shrink in the wash
5. How long can some pathogens persist on clothing under room temperature conditions?
Option: Up to 1 week
Option: Up to 1 month
Option: Up to 3 months
Option: Up to 6 months
6. What is the recommended temperature for washing secondhand clothing to eliminate germs?
Option: 40°C
Option: 50°C
Option: 60°C
Option: 70°C



True-False

7. Secondhand clothing does not pose any infection risk to the wearer.
8. High-temperature washing is essential to remove pathogens from secondhand clothing.
9. Cross-contamination can be avoided by washing secondhand items separately from regular laundry.
10. Staphylococcus aureus is a fungus commonly found in secondhand clothing.
11. Moisture is not a factor that promotes the growth of microbes on clothing.
12. Immunocompromised individuals may be at a lower risk when wearing secondhand clothing.

Gap-Fill

14. The recommended temperature for washing secondhand clothing to eliminate pathogens is approximately _____ °C.
15. It is crucial to wash secondhand clothing rigorously to impede _____ proliferation and minimize infection risk.
16. The presence of harmful pathogens on secondhand clothing can lead to skin and blood _____.
17. Areas of the body that tend to retain moisture, such as armpits, feet, and genitals, harbor the highest concentrations of diverse microbial _____.
18. It is advisable to launder newly acquired secondhand clothing using _____ in water heated to approximately 60°C.

Answer

- Multiple Choice:** 1. To save money and reduce environmental impact 2. To eliminate infectious pathogens 3. E. coli



4. It can harbor disease-causing pathogens from the previous owner 5. Up to 3 months 6. 60°C
True-False: 7. False 8. True 9. True 10. False 11. False 12. False
Gap-Fill: 14. 60 15. germ 16. infections 17. species 18. detergent

Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. Which term refers to an organism that can cause disease?

- Option: Pathogenic
- Option: Virulent
- Option: Reassortment
- Option: Mutation

2. Which term describes someone skilled or competent in a particular activity?

- Option: Proficient
- Option: Encoding
- Option: Synthesis
- Option: Biological

3. Which term relates to a substance dispersed evenly in another substance at a microscopic level?

- Option: Dissipation
- Option: Colloidal
- Option: Gradient
- Option: Efficiency

4. Which term indicates the ability to be maintained at a certain rate or level?

- Option: Projections
- Option: Sustainable
- Option: Elucidated
- Option: Neurodegenerative

5. Which term suggests something prepared or made ready for a specific purpose?

- Option: Hypothetical
- Option: Morphology
- Option: Primed
- Option: Ameliorate

6. Which term refers to the presence of an unwanted or harmful substance?

- Option: Pathogen
- Option: Microbiome



Option: Contamination

Option: Proliferate

7. Which term means to completely destroy or get rid of something?

Option: Thoroughly

Option: Eradicate

Option: Optimization

Option: Dissipation

8. Which term describes a change in genetic material that can lead to variations?

Option: Pathogenic

Option: Virulent

Option: Mutation

Option: Surveillance

9. Which term relates to conditions that involve progressive damage or loss of nerve cells?

Option: Biological

Option: Mechanism

Option: Retrievable

Option: Neurodegenerative

10. Which term refers to the action of making something as effective or functional as possible?

Option: Projection

Option: Retrievable

Option: Optimization

Option: Ameliorate

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. In virology _____ refers to the mixing of the genetic material of different strains.

12. The _____ of the new manufacturing process improved productivity by 30%.

13. The financial _____ for next year show a promising increase in revenue.

14. Efforts to _____ the impact of climate change are crucial for future generations.

15. Understanding the _____ behind cellular communication is essential for medical research.



16. The river flowed downhill following the natural _____ of the landscape.
17. The _____ of proteins within cells is a complex biological process.
18. DNA carries the genetic information through the process of genetic _____.
19. The researcher presented a _____ scenario to explore alternative outcomes.
20. Under optimal conditions bacteria can _____ rapidly.

Matching Sentences (Match each definition to the correct word from the vocabulary list.)

21. Public health officials use ongoing monitoring to detect and track disease outbreaks.
22. The study focused on the impact of environmental factors on various species.
23. The information stored in the database is easily accessible and can be retrieved at any time.
24. The heat energy gradually dissipated into the surrounding environment.
25. The virus strain was identified as highly contagious and harmful.
26. The complex scientific theory was explained in a clear and detailed manner.
27. The study of the bird's unique physical structure revealed insights into its evolution.
28. The experiment was conducted to ensure accurate and reliable results.
29. A random change in the genetic code led to a beneficial in the plant species.
30. The doctor identified the specific responsible for the patient's illness.

Answer

Multiple Choice: 1. Pathogenic 2. Proficient 3. Colloidal 4. Sustainable 5. Primed 6. Contamination 7. Eradicate 8. Mutation 9. Neurodegenerative 10. Optimization

Gap-Fill: 11. Reassortment 12. Efficiency 13. Projections 14. Ameliorate 15. Mechanism 16. Gradient 17. Synthesis 18. Encoding 19. Hypothetical 20. Proliferate

Matching sentence: 1. Surveillance 2. Biological 3. Retrievable 4. Dissipation 5. Virulent 6. Elucidated 7. Morphology 8. Thoroughly 9. Mutation 10. Pathogen



CATEGORY

1. Sci/Tech - LEVEL5

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