



4UR PROTECTION<sup>LTD.</sup>

DISINFECTING POD

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# MISTPAL

The MistPal Walk-Through Cleansing Pod is a revolutionary product which has been developed to be an aid in the prevention and control of the spread of infections caused by harmful germs such as bacteria and viruses – including COVID-19.

## TWO-WAY SYSTEM



MistPal is a two-way system which is of significant importance for establishments such as hospitals. Staff leaving through the MistPal will have the comforting knowledge they are protecting their families when they go home.

MistPal's goal is to support you in keeping your staff and visitors healthy and safe.

## GERMS DON'T MOVE THEMSELVES



Germs depend on people and the environment to move around via contact (such as touching), sneezes, coughs, splashes and inhalation.



Germs are part of everyday life and are found in our air, soil, water, and in our bodies. Some germs are helpful, whilst a few are harmful.

Many germs live in our bodies without causing harm, such as Escherichia coli (E. coli) and staphylococcus aureus but outside of the body some of these germs can cause illnesses such as pneumonia, food poisoning & diarrhoea. Others make us sick such as flu and COVID-19 and sneezes and coughs help them find new hosts to infect.

## WASH YOUR HANDS



Washing your hands properly removes dirt, and up to 90% of viruses and bacteria and helps stop them spreading to other people and objects.

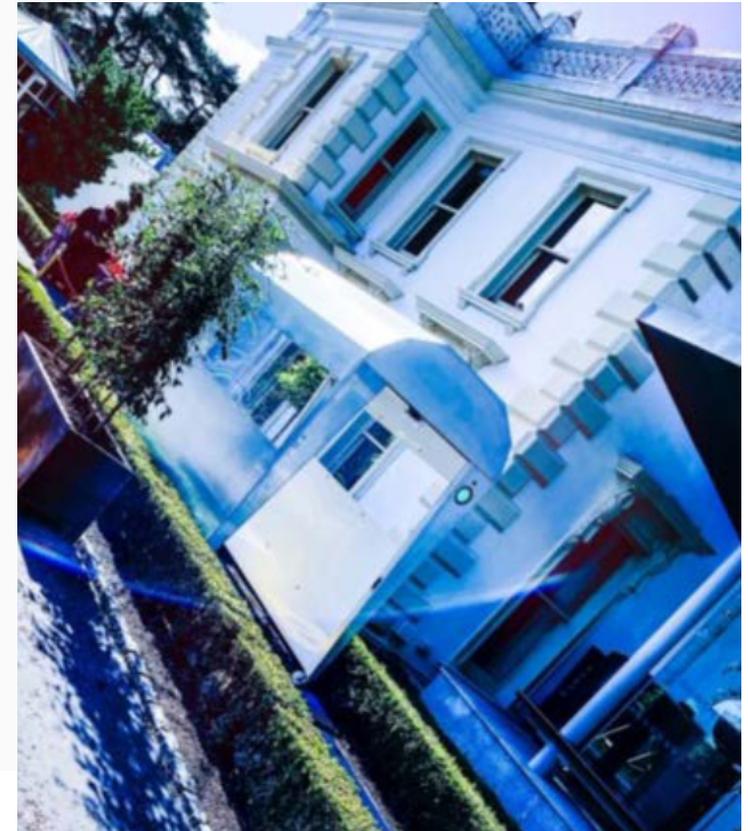
Remember proper handwashing is one of the best ways to protect yourself, your family and colleagues from getting sick. However, there are many times in the day when washing hands with water is not possible and this is where MistPal will help your staff and customers stop picking up infections and spreading them to others.

## Why You Need MistPal



Germs can live on clothing and soft materials, skin and hard surfaces for days and some bacteria can survive for months! This is why sanitising is one of the most important steps in keeping people safe and even more so in light of the current health crisis.

Our plant enhanced sanitising solution Aktivora provides a barrier that can last for many days.



# USING MISTPAL

Many retail stores, hospitals, hotels, maritime cruise industries, airlines and airports, to name but a few, will be adjusting to a new way of operating since the COVID-19 pandemic.

The biggest problem many businesses will face is a huge drop in foot-fall.

## The Best Way To Combat This?

**Give consumers confidence through enhanced safety measures.**

A MistPal cleansing pod at the entrance will show your staff and the public that you are taking customer safety extremely seriously.

All goods passing through the MistPal pod will also receive the same level of protection.

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### MISTPAL CAN BE USED AT ANY ENTRANCE

- ✔ Hotels
- ✔ Hospitals
- ✔ Shops
- ✔ Maritime cruise industries
- ✔ Airlines
- ✔ Airports
- ✔ Supermarkets
- ✔ Stadiums
- ✔ Building sites
- ✔ Restaurants
- ✔ Warehouses
- ✔ Offices



# HOW MISTPAL WORKS

## MistPal Protects Everyone



Disinfecting pods help you protect your clients and employees. The NHS does highlight that clothing and towels can spread germs.

Their website states that the three main ways that this can happen are:

- » When towels or sheets are used by more than one person
- » When someone touches dirty laundry
- » When clothes are washed, germs can spread between items being washed at the same time

MistPal will completely disinfect your clothing on entering or exiting facilities



### SIX EASY STEPS TO FOLLOW

1. When light is green enter one at a time
2. Stand on the footprints
3. Raise your arms
4. Hold your breath for 3 seconds
5. Misting will begin - remain still for 1.5 seconds
6. Exit when you hear the buzzer

## Catering For All Entrances

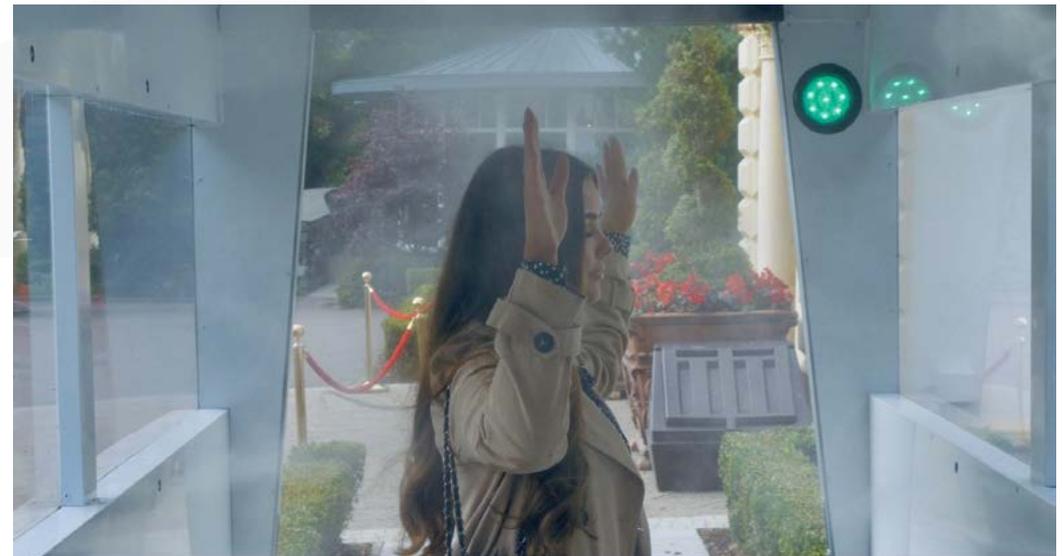


Our disinfecting pod caters for all entrances such as shops, hotels, supermarkets, offices, restaurants, sports arenas, stations, hospitals, building sites; in fact, MistPal pods are engineered to be used by any business or event expecting a high foot-fall or movement of goods into their premises.

## Safe and Effective Sanitisation



Motion sensors activate a high-pressure misting system which coats any person or object in the pod with Aktivora in a completely safe and certified manner; an organic based non-toxic and non-flammable disinfecting solution that completely 'sanitises' employees, visitors or deliveries that go through the pod.



# MISTPAL - MAIN FEATURES



Auto-sensing spraying



1.5 second spray time  
Unique system supported by Aktivora



Adjustable spray timings



Temperature measurement  
With thermal image technology



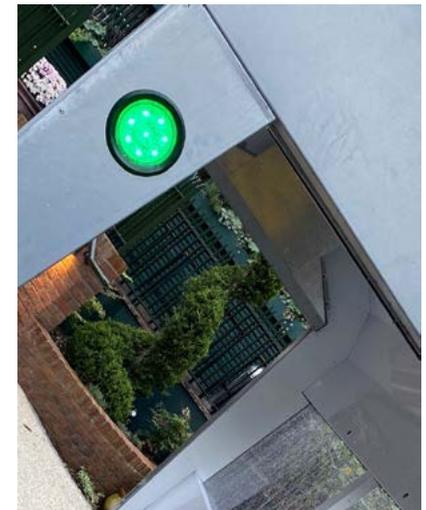
Microcomputer control system



Supports face recognition



Complete with fob system  
To deactivate for staff requiring to pass through the pod regularly



# SAFEGUARDING YOUR BUSINESS

Help your business determine the presence of an elevated temperature in employees, visitors, staff, students, attendees who are entering your facility.

## Temperature Reader

 Infrared non-contact temperature scanner which responds quickly giving a reading on a large LCD screen with great readability, reduces risk of cross infection and can reduce queue times.

-  Contactless testing
-  Non-invasive
-  Fever detection
-  Fast detection (1 second) with the option of an alarm
-  Accurate facial recognition
-  Easy plug and play set up

### FEATURES

- » 8" screen with camera
- » Temperature accuracy +/- 0.5 °C
- » Store up to 30,000 records
- » WiFi enabled
- » Steel base plate & aluminium pedestal
- » LED Traffic system



## Measure Occupancy In Real Time

 The COVID-19 pandemic crisis has emphasised the need for reliable access control system to help manage physical access to public spaces and retail stores.

MistPal's customer counting system will enable you to count the number of people entering and exiting the premises so that you always know the number of occupants.

## Back to Work

Organising a safe return to work requires a new approach.

Many staff will feel daunted about returning to work post lock down so the safer they feel the less anxious they will be.

MistPal reduces workplace risk by not only protecting your staff but also by making them feel more protected. The non-contact face recognition detection, body temperature scanner, and 360° all-round (safe for humans) mist disinfection process safeguards everyone passing through the pod.

Meeting, collaborating, and complex problem solving are easier to do face-to-face. Returning to work will give employees the feeling of being part of a team, and build back up the work-life balance.

# KNOW THE DIFFERENCE

In the cleaning industry it is very important to understand the difference between a sanitiser and a disinfectant.

## Sanitiser

Cleaning removes dirt and germs from surfaces. Cleaning doesn't necessarily kill the germs.

Sanitising lowers the number of bacteria on surfaces and objects. Sanitising offers no confidence in killing fungi or viruses such as the flu or other viruses now commonly found on surfaces.

## Disinfectant

Disinfecting kills or inactivates all germs on all surfaces.

However, this is not the case for the hand sanitising industry. The word sanitiser is generally used to describe a substance or a product used to reduce or eliminate germs on surfaces.

## How do you know if the sanitiser you are using is effective against germs?

### It's all about the 9's

When choosing a 'sanitiser' the number of '9's after the 99% is very important!

If you had 1 million bacteria on your hand and didn't wash that hand, then the kill rate would obviously be 0 %; however, if you wash your hands for 20 seconds following the hand washing guidelines, 90 % of the bacteria on your hand will be lifted from the surface and washed down the drain.

The number of bacteria on your hand will have been reduced by 90% from 1 000 000 (10<sup>6</sup>) to 100 000 (10<sup>5</sup>)

The '9's let us know the potential that your choice of sanitiser, has on reducing the risk of the disease transmission.

Potential For Reducing The Risk Of Disease Transmission				
Product Type Examples	Kill Rate	Log <sub>10</sub> Reduction	No. of Bacteria Remaining	No. of People Infected with ID*
No Treatment	0%	0	1 000 000	10 000
Simple Soap	90%	1	100 000	1 000
Antibacterial Soap	99%	2	10 000	100
Antibacterial Soap & Hand Sanitisers	99.9%	3	1 000	10
Hand Sanitisers	99.99%	4	10	1
Specialist Hand Sanitisers	99.999%	5	1	0
Specialist Hand Sanitisers	99.999%	6	0	0

\*ID = Infectious Disease



# AKTIVORA

## PATENTED SUSTAINED POLYMER ACTION



Aktivora has a patented sustained polymer action technology within its carrier liquid and like Aktivora's biocidal chemicals, this polymer is biodegradable.

The revolutionary and innovative molecular interaction between Aktivora's active ingredients and the nano technology of the carrier liquid is what enhances Aktivora's effectiveness and its ability to protect you and the environment.

## DEVELOPED TO TACKLE PATHOGENIC GERMS



Aktivora was developed to tackle the ever-growing threat of pathogenic germs that are becoming more resistant to our drugs and medicine. After many years of research Aktivora's scientists have developed a potent formula which is a very effective disinfecting and cleaning solution which is completely eco-friendly.

Aktivora easily destroys and removes biofilms, germs, algae, mould plus can be used to remove dirt and surface contaminants giving you and surfaces long lasting protection.



## Why Aktivora?

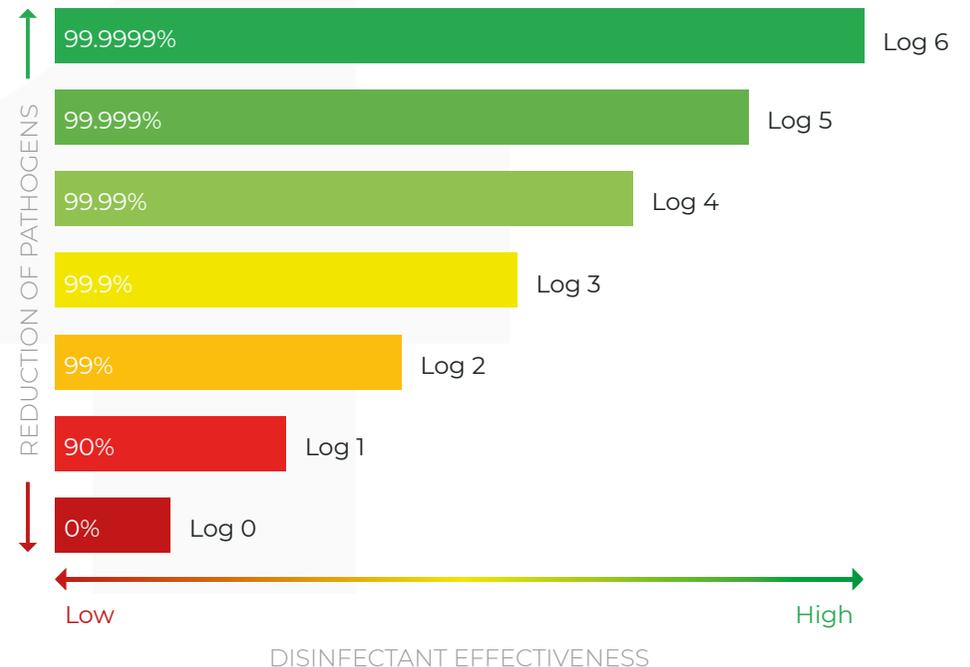
Log 3 reduction is equivalent to 99.9 % reduction (this is the term used in European Standard Test Methods) which means the number of germs counted is 1000 ( $10^3$ ) times smaller than with no action.

Log 5 reduction is equivalent to 99.999 % reduction. Therefore, the number of germs is 100 000 ( $10^5$ ) times smaller after treatment.

Hand sanitisers marked with 99.999% or 99.9999% are in fact disinfectants and reduce the risk of transmission of the disease to zero! This is why Aktivora is the choice of sanitising solution for MistPal.

See Aktivora in action [here](#) in the Translink fleet 

See MistPal in action [here](#) in Galgorm Resort & Spa 



# MISTPAL HAS A SPRAY TIME OF 1.5 SECONDS

How is the spray time of MistPal less than half that of its leading competitors?

It's all about the science and 4 UR PROTECTION LTD Hygiene Auditing Programme.

- ✔ Regular testing of surfaces using specialised swabs before and after treatment are carried out
- ✔ We use an international accredited laboratory microbiological testing laboratory, based in England, to carry out our bespoke efficacy tests
- ✔ Swabbing collects the unseen microorganisms and the MSL lab grow them to a detectable level.

This ensures that the concentrations and methodology of our cleansing programmes give maximum protection for minimum product consumption

- ✔ The disinfecting solution used in the MistPal Pod is Aktivora

MistPal with Aktivora has been certified for safe use by an internationally recognised laboratory. We have a full document which can be reviewed on request.

We commissioned an internationally certified laboratory to carry out a risk assessment as a result of us using our Aktivora formulation in the MistPal Pod with a spray time of 1.5 seconds. **His conclusion was:**

“ Considering the concentration of the actives in the formulation, spray rate/time and volume of the fogging pod. The product is considered safe under normal reasonably foreseeable use and is unlikely to produce an abnormally high number of adverse reactions. ”  
September 2020

At the concentrations of the active ingredients in the formulation no local toxicity affects are considered significant. The mixture is not classified as irritating to eyes or skin with the actives at the concentration in the formulation.



# LABORATORY

Our internationally certified laboratory was founded in 2001 as a microbiological testing laboratory. ISO 90001:2015 UKAS:Schedule 4045

ON-GOING TESTING & MONITORING OF THE EFFECTIVENESS OF MISTPAL

Report Date: 16-Sep-2020

## Standard Swabs Test Report

Swabs - Total Colony Count (3 days @ 30°C)

Sample Number	Sample Description	Reference	Swabs - Total Colony Count (3 days @ 30°C) cfu/swab
20/06218/001	Person 1 Before Entering Mistpal	1	>3.0 E+02
20/06218/002	Person 1 After Existing Mistpal	2	<1

Swabs were taken before and after this “Person A” walked through one of our MistPal Pods based at the Galgorm Spa and Golf Resort, N Ireland, with a 1.5 second spray. These test results let us know that more than (>) 300 germ colonies were counted from the swab test before going through the pod.

The colony count from the swab tests after going through the pod was less than(<) 1!



# AKTIVORA - MAIN FEATURES



Environmentally friendly and biodegradable



Utilises renewable plant extracts as key ingredients



Makes it impossible for germs and viruses to build up a resistance



Works well on all surfaces without tainting or corroding



Broad spectrum killer against all germs, including superbugs



Easily destroys and removes germs whether they are biofilms, algae, moulds, bacteria or viruses whilst giving long lasting protection



The innovative chemistry and physics technology of Aktivora's carrier liquid enhances the efficiency and longevity of the disinfection processes



Non-toxic  
Non-irritant  
Non-corrosive  
Non-flammable  
thus safe to use on humans, animals and all surfaces



Continues to protect for over 24 hours without reapplication

# HOW AKTIVORA WORKS

## UNIQUE DISINFECTING TECHNOLOGY



Aktivora combines a unique system of chemistry and physics that works in a totally different way to the current and existing cleaning/disinfecting technologies.

## SEEK AND DESTROY



Aktivora has “Seek and Destroy” molecules that penetrate and break apart biofilms and dismantle the cell walls of germs, at the same time, dehydrating them so they effectively “implode” therefore, building a resistance to this technology is impossible!

## PROTECTIVE BARRIER



Aktivora’s protective barrier also prevents bacteria from feeding and breeding by cutting off the food source; whilst at the same time the electrostatic effect also plays a very important part in the war against germs.

## ACCUMULATIVE PROTECTION



Aktivora is accumulative, meaning the more you use it, the stronger the protection, as any broken surface matrix will “heal itself”.

## ELECTROSTATIC POSITIVE CHARGE



Some of the molecules in Aktivora provides a strong electrostatic positive charge which is the key to it being able to coats and protect treated surfaces from further contamination of germs, dirt, algae and surface soiling for prolonged periods.

## SUPERIOR PERFORMANCE



Aktivora penetrates up to 10 times more efficiently than conventional cleaners and disinfectants and therefore delivers unrivalled and superior performance in kill rate efficiency and cleaning power, with log kills up to 99.999% (Log 5 Reduction).



# FAQS

<p><b>Is it safe to use on children?</b></p>	<p>It is safe to use on all humans and animals. Mammals have a completely different cell structure to germs such as viruses and bacteria and AKTIVORA has been developed to take advantage of that fact – which is GOOD for us and BAD for the germs!</p>
<p><b>Is it safe to use during pregnancy?</b></p>	<p>Yes.</p>
<p><b>Is it safe to use if you have asthma/chest complaints?</b></p>	<p>Yes.</p>
<p><b>Do you know what plants are used in the product in case of potential allergens?</b></p>	<p>All plant-based allergens have been removed.</p>
<p><b>It says on the safety information to avoid contact with the eyes or irritation will occur and also that it may cause irritation to sensitive skin types. What if someone has a reaction?</b></p>	<p>As with shampoo, for example, if Aktivora comes into contact with your eyes and causes irritation simply bathe the eye with running water. Aktivora has been specifically developed for sensitive skin types, however if in the unlikely event irritation is experienced, simply wash it off with soap and water. We have not encountered either problem to date but that is not to say that it might not happen. If in any doubt seek medical advice either from your pharmacist or doctor.</p>
<p><b>WHO (World Health Organisation) and CDC (Centres for Disease Control and Prevention) have both categorically stated that these tunnels are not recommended as they likely cause further spread and harm to those who use them (the tunnels).</b></p>	<p>This is only true if the disinfecting product being used in the tunnels is dangerous to humans (which was the case in India) and ineffective against the pathogens being targeted. This is not the case for our product. MSL Laboratories, UK, and M and L Laboratory Services Ltd, SA, are both internationally renowned microbiology laboratories who have both tested AKTIVORA against a whole range of pathogens, including COVID-19 (which had an effectiveness of log 5)</p>
<p><b>I have heard claims that using a disinfecting tunnel will lead to respiratory and lung cancers in years to come. Is this true?</b></p>	<p>Don't know how this particular claim came about, probably companies using toxic chemicals in the tunnels, but definitely NOT with our product, all our ingredients are fully passed and authorised under E.U regulations.</p>
<p><b>Has a risk assessment been carried out with respect to effect the misting fog has on allergies and other long term health implications?</b></p>	<p>As mentioned previously, Aktivora does not contain any allergens and is compliant regarding any health concerns set by British, European and American Laws.</p>
<p><b>Does it kill Coronavirus?</b></p>	<p>The MistPal Pod has been developed to provide additional protection against the spread of all diseases which are contractable through touching surfaces. It is important to remember washing your hands for 20 seconds following the set guidelines is still the key method of protection from transmittable pathogens. MSL labs have shown that AKTIVORA does kill the corona virus.</p>

# GLOSSARY

**Algae:** a simple, non-flowering, and typically aquatic plant of a large group that includes the seaweeds and many single-celled forms. Algae contain chlorophyll but lack true stems, roots, leaves, and vascular tissue.

**Antimicrobial:** An agent that destroys microbes, inhibits their growth, or prevents or counteracts their pathogenic action.

**Antiseptic agent:** An antimicrobial substance which reduces or inhibits the growth of microorganisms on living tissues. Examples include alcohols, chlorhexidine gluconate, chlorine derivatives, iodine, chloroxylenol (PCMX), quaternary ammonium compounds, and triclosan.

**Biofilm:** Biofilms are a collective of one or more types of microorganisms that can grow on many different surfaces. Microorganisms that form biofilms include bacteria, fungi and protists. One common example of a biofilm is dental plaque, a slimy build-up of bacteria that forms on the surfaces of teeth.

**Detergent (surfactant):** Compounds that possess a cleaning action. They are composed of a hydrophilic and a lipophilic part and can be divided into four groups: anionic, cationic, amphoteric, and non-ionic. Although products used for handwashing or antiseptic hand-wash in health care represent various types of detergents, the term "soap" will be used to refer to such detergents in these guidelines.

**Germ:** The term "germs" refers to the microscopic bacteria, viruses, fungi, and protozoa that can cause disease.

**Germicides:** Some antiseptics are true germicides, capable of destroying microbes (bactericidal), while others are bacteriostatic and only prevent or inhibit their growth.

**Microbes:** A microorganism or microbe is a microscopic organism that comprises either a single cell (unicellular), cell clusters, or multicellular relatively complex organisms.

**Mould:** Mould is a common type of fungus that thrives in moist, warm conditions. It is an important part of our ecosystem and yet can be a nuisance.

**Pathogen:** A pathogen or infectious agent is a biological agent that causes disease or illness to its host. The term is most often used for agents that disrupt the normal physiology of a multicellular animal or plant. However, pathogens can infect unicellular organisms from all of the biological kingdoms.

**Plain soap:** Detergents that do not contain antimicrobial agents, or that contain very low concentrations of antimicrobial agents effective solely as preservatives.

**non-corrosive:** That does not cause corrosion.

**disinfectant:** A substance which kills germs and/or viruses.

**sterilisation:** Sterilisation is a term referring to any process that eliminates (removes) or kills all forms of microbial life, including transmissible agents (such as fungi, bacteria, viruses, spore forms, etc.) present on a surface, contained in a fluid, in medication, or in a compound such as biological culture media.

**Viruses:** With the exception of newly discovered prions, viruses are the smallest agents of infectious disease. Most viruses are exceedingly small (about 20 - 200 nanometres in diameter) and essentially round in shape. They consist of little more than a small piece of genetic material surrounded by a thin protein coating. Some viruses are also surrounded by a thin, fatty envelope.

Viruses are different from all other infectious microorganisms because they are the only group of microorganisms that cannot replicate outside of a host cell. Because viruses do not eat food - instead they seize materials and energy from host cells by hijacking cellular machinery - some scientists argue that they are more like complex molecules than living creatures. Viruses are known to infect nearly every type of organism on Earth. Some viruses, called bacteriophages, even infect bacteria.

**Bacteria:** Bacteria are ten to 100 times larger than viruses. They are typically 1 to 3 microns in length and take the shape of a sphere or rod. Most bacteria consist of a ring of DNA surrounded by cellular machinery, all contained within a fatty membrane.

They acquire energy from the same essential sources as humans, including sugars, proteins, and fats. Some bacteria live and multiply in the environment while others are adapted to life within human or animal hosts. Some bacteria can double in number every fifteen minutes, while others take weeks or months to multiply.

Bacteria cause many types of diseases, ranging from mild skin irritation to lethal pneumonia.

**Parasites:** Parasites are part of a large group of organisms called eukaryotes. Parasites are different from bacteria or viruses because their cells share many features with human cells including a defined nucleus.

Parasites are usually larger than bacteria, although some environmentally resistant forms are nearly as small. Some parasites only replicate within a host organism, but some can multiply freely in the environment. Parasites can be made of one cell, as in the case of Giardia, or many cells, as with parasitic worms.

In developing countries unicellular parasites, such as Plasmodium, the cause of malaria, are a major source of disease.

**Fungi:** Fungi are diverse in terms of their shape, size and means of infecting humans. Fungi are eukaryotes, meaning that like parasites, their cells have a true nucleus and complex internal structures.

They are most commonly found as environmentally resistant spores and moulds, but can cause disease in humans in the form of yeasts. Fungi most often cause skin infections and pneumonia. Fungal diseases are particularly dangerous to immunocompromised people, such as those suffering from AIDS.

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