

HOSPITAL AND HEALTHCARE

Hospital-Acquired Infection Control



• Who Are At Risk ?

Indoor atmospheres of all Hospitals & Healthcare Industries are susceptible to Cross Contaminations. Cross-contamination can be between patients, staff, doctors, visitors & service providers.

Most of the modern hospitals & health care industries have centralized air-conditioning.

PATIENT



STAFF



DOCTORS



VISITORS



• Risk Involved

CROSS CONTAMINATION



The significant risks involved in hospitals are Cross contaminations, Hospital Acquired Infections (HAI) & disease.

HOSPITAL ACQUIRED INFECTION (HAI)



Hospital & healthcare industries seriously suffer from

- Blood Stream Infections (BSI)
- Urinal Tract Infections (UTI)
- Ventilator-Associated Pneumonia
- Surgical Site Infections (SSI).

DISEASE



So it has become a necessity to keep indoor air & surfaces disinfected 24x07.

TouchPoints

ATMOSPHERE



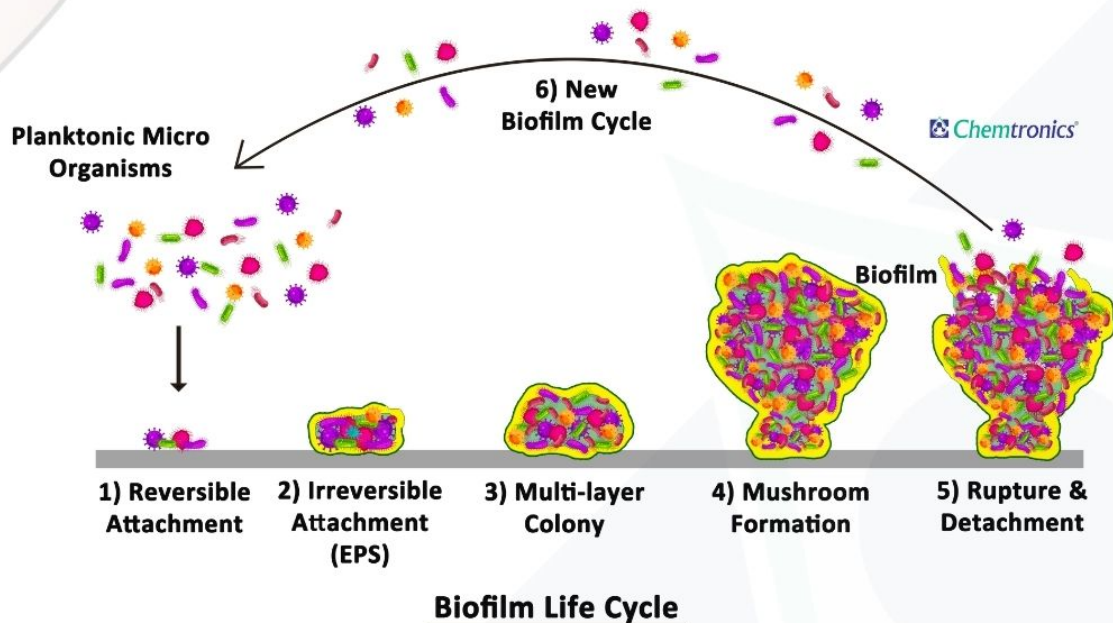
SURFACES



More than air-borne atmospheric contaminations, hospitals have hidden surfaces that are inaccessible for conventional cleaning. Inside surgical equipment, under the bed, behind furniture, walls, falls ceiling, AC ducts, lights fixtures, are impossible to clean usually. These surfaces are the source of biofilm formation. And Biofilms are the protective layer underneath the bacteria & viruses multiply.

ROOT CAUSE

8 hours are enough to complete the Biofilm life cycle



BIOFILM is a source of constant contamination created by an accumulation of bacteria, which develops a protective matrix made of Organic polymers (EPS) polysaccharides, proteins, DNA, lipids, etc. Biofilms have a protective matrix that protects bacteria, making them more resistant to traditional cleaning and disinfection agents.

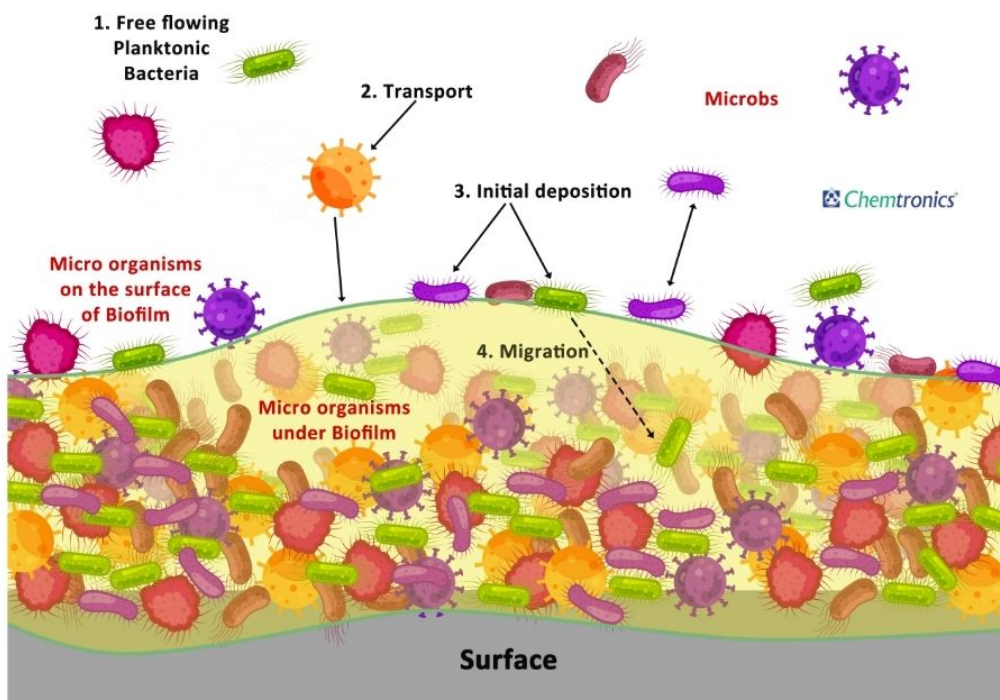
Misconcept

FALLACIES:

1. Conventional chemical cleaning is enough to get rid of surface micro-organisms growing under the protective layer of Biofilm.
2. Chemical cleaning can remove biofilms.
3. A good air quality report means the equivalent level of hygiene & safety.

FACTS:

1. 80% of the microbes on the planet live and multiply under the self-developed protective layers of Biofilms.
2. More than 50% of the surface areas are not possible to clean.
3. Microorganisms under Biofilm are 10 to 1,000 times resistant to antimicrobial agents & biocides.
4. Surfaces that are not thoroughly treated are bound to form Biofilms.

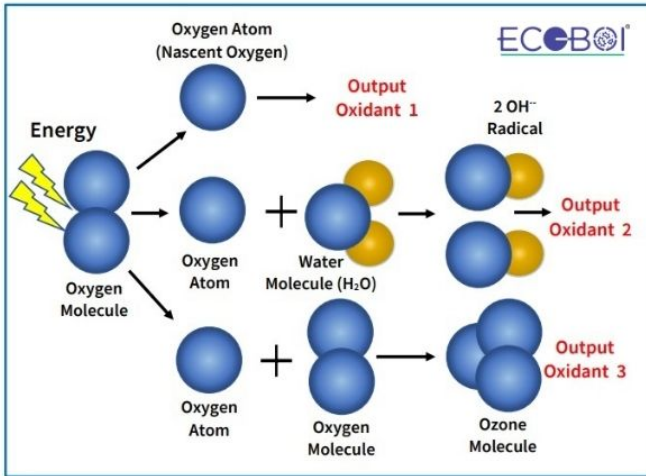


Many efficacy test results prove the high performance of disinfection when pre & post results are compared. Unfortunately, these results are of those micro-organisms irradiated just present on the surface of the Biofilm. Surface biofilm has multiple stages when biofilms are in their earlier stages may be possible to remove them by conventional treatments. But once they are stabilized, it needs strong longterm oxidation to remove. Even after the removal of Biofilms, it is equally necessary to prevent them from re-forming with continual treatment.

Solution



*Treatment which is capable of entirely oxidizing the Biofilms & bio growth underneath.
The technique should be the point of source.*

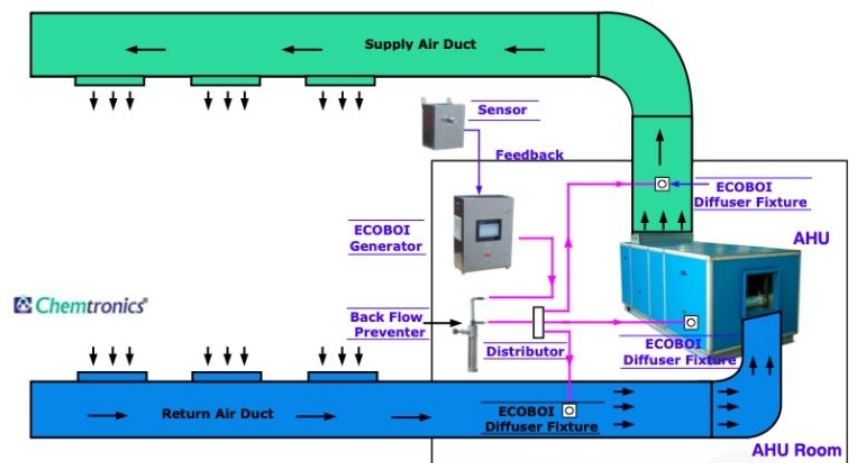


Technology - "ECOBOI"

Electro-Chemical Oxidation (ECO)
+
Bipolar Oxygen Ionisation (BOI)

Integration

As per HVAC Design
Retrofitting in Existing AHUs.
Site-specific Distribution Design



No Consumables



No Chemicals



No Charging



No Refill

Application Spectrum:



Offices



Schools & Colleges



Hospitals & Healthcare



Hotels & Restaurants



Banquet & Conference



Malls & Super Markets



Pubs & Bars



Sports Complex & Gyms

Safety Compliances:

