



# HEALTH PACKET EDITION #1 - STAPH, MRSA, BIOFILMS



Please Note: There are images of Staph Infection and MRSA inside this packet that could be unsettling to some.

## **Staph Infections**

## What Is Staphylococcus?

*Staphylococcus* is a type of bacteria that can cause many types of infections in your body. Commonly referred to as Staph (pronounced "staff"), it is common bacteria found on most people's skin, and often it does not cause disease. More than 30 types of Staphylococci bacteria cause infections, but the most common type of Staph infection is caused by *Staphylococcus aureus*. If the

bacteria gains access to the body, either through a wound on the skin or via the respiratory tract, it can cause serious infections.

## What are the Signs and Symptoms of Staph Infection?

Symptoms of staphylococcal disease of the skin include pus-filled abscesses (also called boils or furuncles). Pain, swelling, and redness in the area of the infection is common, along with drainage of pus. If the staph infection is in the blood (called bacteremia or sepsis) symptoms can include fever, chills, and low blood pressure (hypotension).

#### What Types of Diseases Are Caused by Staph?

*Staphylococcus* causes many different types of infections. Most of the infections cause localized inflammation or pockets of infection known as abscesses. Superficial skin infections such as impetigo (a crusting of the skin) or cellulitis (an infection of the skin layers) are the most common. Breastfeeding women can get a staph infection of the breast called mastitis, which can release bacteria into the mother's milk. Staph bacteria

in the lungs can cause pneumonia. When a Staph infection gets into the bone it can cause osteomyelitis. Staph infection in the blood can also infect the heart or heart valves (endocarditis). If the Staph infection gets into the bloodstream it can spread to other organs and cause severe and life-threatening infections (bacteremia or sepsis). Sepsis can lead to shock or multi-organ failure, which can rapidly lead to death.

## What Are Complications of Staph Infections?

Skin infections with Staph bacteria can cause a serious condition called scalded skin syndrome, which is seen more often in children, but can occur in adults as well. The infection causes a breakdown of the upper layers of the skin, which blisters and sloughs off (just like a severe burn). When the infection covers a large surface area of the body, the result can be fatal. Scalded skin syndrome is treated with intravenous antibiotics and fluids to prevent dehydration.

#### *For Staph Infections* — *Many have had good results with doing the following daily:*

+ Stay away from sugar, starch & alcohol.

- + 8 Avenger
- + 3oz FuCoyDon + Drink lots of water.
- 2oz Eternity
- + 2 BodyShield
  - + Let set for 20 mins. gauze soaked, alternate Terminator & Eternity
- + 2-3 H2 Stix + Use SiselSafe® Home and Personal Care for cleaning home & body.

Wash effected areas, alternate with OrganiCleanse, H2Stix

The products and/or information on this page are not for the intent to diagnose, treat, cure, or prevent any disease. Product support suggestions are of opinion based on scientific research of ingredients and positive results others have experienced.

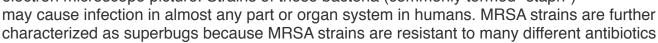






## MRSA What is MRSA?

# Methicillin-resistant *Staphylococcus aureus* (MRSA) are shown in this scanning electron microscope picture. Strains of these bacteria (commonly termed "staph")





#### Symptoms of a MRSA Skin Infection

Initially, MRSA infections in the skin resemble minor skin infections; they appear as a red bump, pimple, or boil on the skin that may be painful, swollen, or warm to the touch. Occasionally, these infections may open and have pus drain from the area. Although most MRSA skin infections are mild, some progress and spread further into the skin and to other areas or organ systems.

#### Is It MRSA, a Spider Bite, or Something Different?

Bug bites, insect bites, spider bites, rashes, and stings are often difficult to distinguish from MRSA infections because they have similar appearances or symptoms. However, if the person never viewed a spider or other entity causing the lesion, there is a good chance the skin lesion may be caused by MRSA, especially if the lesion area spreads or does not start getting better after about two to three days of treatment with common antibiotics.





#### MRSA Skin Infection and Cellulitis

Often, the first indication of MRSA infection is a spread of the infection into the surrounding skin, producing skin that is pink or reddish and often is warm, tender, and swollen. Such an infected skin area is termed cellulitis and represents infection spread into deeper skin layers. Cellulitis can rapidly advance (over a few hours) in some individuals.

#### MRSA Skin Infection: Abscess

MRSA may be somewhat contained by the body by attempting to wall off the invading bacteria by making a pocket of pus surrounded by cells trying to kill or stop the MRSA from advancing. This deeper skin infection is termed an abscess and can spread like cellulitis in some instances. Abscesses usually require drainage (sometimes done with warm compresses, sometimes with a needle,



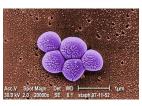
while others require surgical drainage) and antibiotics; your doctor should be consulted as you should not attempt to treat MRSA infections by yourself.

## How Do People Catch MRSA?

MRSA is easily spread to other individuals by people with the organisms on their skin. Usually, either skin-to-skin contact or contact with towels, razors, or even doorknobs or benches can transfer MRSA to another person. Some people, termed carriers, have MRSA strains on their body but have no symptoms; however, these people can still transfer MRSA to others by direct and indirect contact (towels or clothing that carriers have used).

## Who Can Get MRSA?

Some individuals are at higher risk to get MRSA than others. People who have a chronic medical condition (for example, cancer, HIV, or any immune depression), the elderly, individuals in hospitals, or those who have had recent surgery are at higher risk for MRSA infections.



## Can Healthy People Get MRSA?

MRSA can easily infect healthy people. Outbreaks have been documented at many areas where people are crowded together (for example, gyms, dormitories, barracks, prisons, and day-care centers). The type of MRSA obtained by healthy people outside of health-care facilities is often termed community-associated or community-acquired MRSA (usually termed CA-MRSA) by many clinicians.

## MRSA in Dogs and Cats

MRSA can be transferred to pets such as cat or dogs (the animals may have no symptoms like human MRSA carriers) and, unfortunately, may reinfect the pet owners or other people. Only CA-MRSA strains have been documented to do this with pets.

## MRSA on the Beach

MRSA strains survive fairly well for some time on objects handled or worn by carriers or infected individuals. MRSA has been found even in sand and beach water on occasion. How MRSA arrived there is unclear, but the practice of good hygiene (covering skin scrapes, frequent hand washing, and showering with soap after going to the beach or engaging in another water activity) is the best way to reduce the chance of getting a MRSA infection from objects in the environment.

## MRSA Skin Infection and Home Care

Warm compresses and wound care  $\epsilon$ you recover. In addition, you need to be careful to dispose of or disinfec o prevent passing MRSA to others.

## How to Avoid MRSA

Avoiding or reducing the chance of getting infected with a MRSA strain of S. aureus is fairly easy -- the cardinal rule is frequent hand washing with soap and water. Using hand sanitizer can also reduce infection risk. Avoid skin-to-skin contact with others if possible. Don't share towels and never touch bandages or wounds on other people, especially if they are hospitalized. Again, hand washing and showering with soap and water is the key to reducing MRSA (and other) infections. Disinfecting surfaces and other items also reduces the chances for infection.



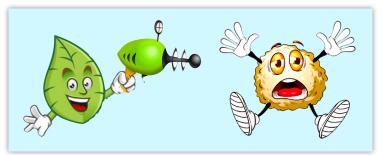
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- + 2oz Eternity
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+ 2-3 H2 Stix

- Wash effected areas, alternate with OrganiCleanse, H2Stix
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## **Busting Biofilms** Monolaurin and Biofilm Control

Great info when dealing with staph, Lyme disease, and other infections.

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#### **Busting Biofilms**

By forming a collective in biofilms, bacteria and fungi survive and guarantee their growth and expansion. Bacteria and fungi thrive in biofilms because of the large number of species present, allowing the biofilm to endure and adapt. If a toxic substance is presented, the biome mutates by choosing the most adaptable species which often leads to antibiotic resistance. Biofilms often cause infections that are complex, chronic, and immune to antibiotic treatment. The effects of contamination are often widespread and costly: from clinical treatment infections to outbreaks like salmonella and recurring fungal infection.

#### Monolaurin and Disrupting Biofilms

Because of its antibiotic resistance, researchers need to look for other ways to control biofilms and monolaurin may be one of these alternative forms of treatment. Monolaurin is a natural compound, commonly found in coconut oil, known for its antibacterial and antiviral properties [Ref #3]. Various studies have demonstrated impressive benefits of Monolaurin as a biofilm disruptor which include:

#### Prevention of diseases caused by certain types of Salmonella

Monolaurin has been found effective in some strains of salmonella with single lipopolysaccharide layers. The lipopolysaccharide layers of biofilms are responsible for adhesion, growth, and protection of bacterial and fungal culture. Monolaurin's antibacterial properties can act as a biofilm disruptor in this layer.

#### 

The mycelium is responsible for feeding the fungal biofilm through several digestive enzymes. Trehalose is one of the digestive enzymes responsible for both growth and adaptation. Without trehalose, the mycelium cannot get any nutrition. Monolaurin is potent against trehalose. Its antifungal properties allow it to stop both the growth and the mutation of the fungi mycelium.

#### Inhibits bacterial genes that are responsible for releasing toxins.

Monolaurin also fortifies host cells from toxic shock.

#### Attacks fungi and yeasts without affecting the body's PH

Fungal infections in the female reproductive system are complicated to treat. Most antifungals damage the mycelium but have the side effect of destabilizing the body's PH. Monolaurin is able to destroy fungal infections without disrupting the body's natural acidic levels.

#### Alters biofilm formation

By changing biofilm formation, monolaurin breaks down the defense structure of biofilms.

#### Improves immune system function

Biofilms' antibiotic resistance can be difficult for patients who are immunocompromised. Monolaurin has the added benefit of activating T-cells needed to fight infection without triggering autoantibodies.

#### Conclusion

Biofilm infections are complex and costly. As biofilms learn to adapt, alternative forms of treatment are necessary. Monolaurin is at the frontline of the treatment needed to disrupt biofilms. As research on the compound's properties grows, so are the chances of controlling biofilm infections.

#### Sisel has 2 beautiful products that have Monolaurin in the ingredients:

Avenger for internal support and Cucumber Lime for external support

## Fucoidan and Biofilm study on Pub-med

Antimicrobial and Antibiofilm Activities of **Sulfated Polysaccharides** (Fucoidan) from Marine Algae against Dental Plaque Bacteria.



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#### Abstract

Dental plaque **biofilms** cause various dental diseases; therefore, inhibiting the growths of the dental plaque bacteria which produce biofilms can be a strategy for preventing dental disease. Certain sulfated polysaccharides from marine algae exert antimicrobial activities against human bacterial pathogens in addition to their physiological benefits. On the basis of these observations, the antimicrobial and antibiofilm activities of sulfated polysaccharides from different marine algae were evaluated against dental plaque bacteria. Among the sulfated polysaccharides, a fucoidan from Fucus vesiculosus showed notable antimicrobial activities against the selected dental plaque bacteria, including some foodborne pathogenic bacteria. The minimum inhibitory concentrations were of 125 to 1000 µg mL-1.

# Regarding the antibiofilm activity, the fucoidan at the concentrations of above 250 $\mu$ g mL-1 completely suppressed the biofilm formations and planktonic cell growths of Streptococcus mutans and S. sobrinus.

However, no eliminative effect on the completed biofilm was observed. The fucoidan consisted of almost fucose base polysaccharide containing approximately 14.0% sulfate content. The average molecular weight of the fucoidan was changed by heat treatment (121 °C for 15 min) and it affected the antimicrobial activity.

#### **KEYWORDS:**

antimicrobial activity; dental caries; dental plaque biofilm; marine alga; molecular weight; monosaccharide; sulfated polysaccharide

#### So, reading the last line...

What if we take **FuCoyDon** and **Avenger** together, then add the **Balance D** and the **SupraDetox** to help eliminate the garbage out of the intestinal walls. Add **BodyShield**.... Fulvates assist in eliminating heavy metals and toxins. Turmeric is essential in eliminating stomach parasites... hence the **BrainVitality**. Ginger and **GreenTea**...

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Shipping

TOTAL



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SKU Code	Product Name	Preferred Customer Price (USD)	CV	PV	DistributorPrice (USD)	CV	PV
Sisel Health							
	1 The A.G.E. Pill	76.00	47	58	69.00	42	53
F131668-10-0		152.00	109	61	138.00	99	55
	1 FuCoyDon Intensified	56.00	56	56	51.00	51	51
F130054-10-0		58.00	58	58	53.00	53	53
	1 SpectraMaxx	64.00	64	64	58.00	58	58
	1 Triangle of Life Set	174.00			158.00		158
F133631-10-0	1 Encompass 360	48.00	48	48	44.00	44	44
	1 Brain Vitality	58.00	58	58	53.00	53	53
F136422-10-0		102.00	90	101	93.00	93	93
	1 SupraDetox	30.00	29	29	27.00	27	27
	1 SupraOmega Plus	64.00	65	65	58.00	58	58
F006001-10-0		36.00	36	36	32.00	32	32
F127597-10-0		25.00	25	25	22.00	22	22
F004001-10-0		<u>34.00</u> 47.00	32	34 47	31.00	29 42	31 42
F130798-10-0	1 Body Shield	34.00	<u>47</u> 34	34	42.00	31	<u>42</u> 31
F137342-10-0		58.00	47	58	53.00	42	53
	1 InnerChi for Him	61.00	47	61	55.00	44	55
F134734-10-0		49.00	49	49	44.00	44	44
	1 Sisel Kaffé Premium Ground	34.00	30	34	31.00	27	31
	1 Sisel Kaffé Premium Instant	29.00	30	30	27.00	27	27
	1 Sisel Kaffé Sencha Green Tec		42	42	39.00	39	39
	1 SiselSafe CBD Full Spectrum E		137	165	150.00	125	150
	1 SiselSafe CBD Dual Action Wo				49.95		50
	1 SiselSafe CBD THC-Free Extra				80.00		80
Sisel Fitness	S						
F137856-10-0	1 Sisel H2Stix	33.00	22	33	29.95	20	29
F138038-10-0	1 Sisel H2Stix Water Bottle	19.95	0	0	19.95	0	0
F137315-10-0	1 SiseIRIPT	70.00	58	69	63.00	53	62
F134943-10-0	1 SiseLEAN Shake Chocolate	64.00	50	63	58.00	46	58
F131209-10-0	1 SiseLEAN Shake Vanilla	64.00	50	63	58.00	46	58
F136478-10-0	1 4Restore	70.00	49	69	63.00	40	62
F131626-10-1		43.00	25	43	39.00	22	39
F135002-10-0	1 Fire N' Ice	58.00	58	58	53.00	53	53
Sisel Safe							
F130772-10-0	1 Sapphire Shampoo	23.00	24	24	21.00	21	21
	1 Sapphire Conditioner	26.00	26	26	24.00	24	24
	1 Enliven Bath and Shower Gel		17	19	17.00	16	17
	1 Terminator Mouth Rinse	13.00	13	13	11.00	11	11
	1 Terminator Mouth Rinse (2oz.		2	3	3.00	2	3
	1 SupraShine Toothpaste	10.00	9	10	9.00	9	9
F100047-10-0		25.00	25	25	22.00	22	22
	1 Vitae Bar Soap	12.00	8	13	11.00	7	11
	1 Vibrant Laundry Detergent	27.45	16	26	24.95	15	24
	1 AseptiClean	<u> </u>	18	18 13	17.00	16	17
Sisel Beauty	1 OrganiCleanse	13.00	9	13	11.00	9	11
	1 Transfusium	97.00	97	97	88.00	88	88
	1 Sisel Rapid Repair	61.00	55	61	55.00	50	55
	1 Actify 6000 Face and Neck C		37	37	33.00	33	33
	1 Exfolium (50mL Jar)	52.00	49	51	48.00	44	47
	1 SkinDu Moisturizing Mist	21.00	21	21	19.00	19	19
FI.3U.377-1U-U							
	1 Sisel Firming Facial Cleanser	16.00	13	16	15.00	11	15