

Casual Friday Series

Navigating Silent Health Hazards

The Reticent Infection



Disclaimer

- *Information in this presentation is not intended, in itself, to diagnose, treat, reverse, cure, or prevent any disease. While this presentation is based on medical literature, findings, and text, The following statements have not been evaluated by the FDA.*
- *The information provided in this presentation is for your consideration only as a practicing health care provider. Ultimately you are responsible for exercising professional judgment in the care of your own patients.*



What does it mean to be Reticent?

Definition of Reticent:

- Inclined to be silent or uncommunicative in speech: Reserved or Reluctant
- The trait of being uncommunicative; not volunteering anything more than necessary.

Why I chose this to discuss infection?

- The majority of society associates infection with being “sick” and having symptoms.
- Asymptomatic infections as a contributing factor in degenerative disease has been debated for some time and only “recently” have been proven to have a substantial negative impact.
- Most of the disease causing infections we will discuss are asymptomatic.



How to Determine Infection

CBC with Differential

- This is the most easily accessible test for infection and where I like to start.
- White Blood Cell Count (WBC) is the main thing that determines Acute vs Chronic
 - Functional Range for WBC is 4.5-6.5 (however...)
- Once you acknowledge the presence of immune activation or irritation you can utilize the individual WBCs to determine type (bacterial, fungal, viral, etc)

Specialty Testing:

- This can look differently depending on the client in front of you.
- Stool test, cultures, biopsies and more.
- More on this later.



CBC Examples

CBC With Differential/Platelet

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
WBC ⁰¹	6.6	6.8 02/10/2023	x10E3/uL	3.4-10.8
RBC ⁰¹	4.93	5.30 02/10/2023	x10E6/uL	4.14-5.80
Hemoglobin ⁰¹	14.1	15.1 02/10/2023	g/dL	13.0-17.7
Hematocrit ⁰¹	43.8	46.7 02/10/2023	%	37.5-51.0
MCV ⁰¹	89	88 02/10/2023	fL	79-97
MCH ⁰¹	28.6	28.5 02/10/2023	pg	26.6-33.0
MCHC ⁰¹	32.2	32.3 02/10/2023	g/dL	31.5-35.7
RDW ⁰¹	12.1	11.8 02/10/2023	%	11.6-15.4
Platelets ⁰¹	266	274 02/10/2023	x10E3/uL	150-450
Neutrophils ⁰¹	53	52 02/10/2023	%	Not Estab.
Lymphs ⁰¹	32	32 02/10/2023	%	Not Estab.
Monocytes ⁰¹	7	7 02/10/2023	%	Not Estab.
Eos ⁰¹	6	8 02/10/2023	%	Not Estab.
Basos ⁰¹	1	1 02/10/2023	%	Not Estab.
Neutrophils (Absolute) ⁰¹	3.6	3.5 02/10/2023	x10E3/uL	1.4-7.0
Lymphs (Absolute) ⁰¹	2.1	2.2 02/10/2023	x10E3/uL	0.7-3.1
Monocytes(Absolute) ⁰¹	0.4	0.5 02/10/2023	x10E3/uL	0.1-0.9
Eos (Absolute) ⁰¹	0.4	0.6 02/10/2023	x10E3/uL	0.0-0.4
Baso (Absolute) ⁰¹	0.1	0.1 02/10/2023	x10E3/uL	0.0-0.2
Immature Granulocytes ⁰¹	1	0 02/10/2023	%	Not Estab.
Immature Grans (Abs) ⁰¹	0.0	0.0 02/10/2023	x10E3/uL	0.0-0.1

CBC Examples

CBC With Differential/Platelet

Test	Current Result and Flag		Previous Result and Date		Units	Reference Interval
WBC ⁰¹	6.4		6.0	10/18/2023	x10E3/uL	3.4-10.8
▲ RBC ⁰¹	5.35	High	5.30	10/18/2023	x10E6/uL	3.77-5.28
▲ Hemoglobin ⁰¹	16.1	High	16.8	10/18/2023	g/dL	11.1-15.9
▲ Hematocrit ⁰¹	49.4	High	48.4	10/18/2023	%	34.0-46.6
MCV ⁰¹	92		91	10/18/2023	fL	79-97
MCH ⁰¹	30.1		31.7	10/18/2023	pg	26.6-33.0
MCHC ⁰¹	32.6		34.7	10/18/2023	g/dL	31.5-35.7
RDW ⁰¹	12.5		12.3	10/18/2023	%	11.7-15.4
Platelets ⁰¹	214		220	10/18/2023	x10E3/uL	150-450
Neutrophils ⁰¹	40		41	10/18/2023	%	Not Estab.
Lymphs ⁰¹	48		46	10/18/2023	%	Not Estab.
Monocytes ⁰¹	9		10	10/18/2023	%	Not Estab.
Eos ⁰¹	2		2	10/18/2023	%	Not Estab.
Basos ⁰¹	1		1	10/18/2023	%	Not Estab.
Neutrophils (Absolute) ⁰¹	2.5		2.5	10/18/2023	x10E3/uL	1.4-7.0
Lymphs (Absolute) ⁰¹	3.1		2.8	10/18/2023	x10E3/uL	0.7-3.1
Monocytes(Absolute) ⁰¹	0.6		0.6	10/18/2023	x10E3/uL	0.1-0.9
Eos (Absolute) ⁰¹	0.1		0.1	10/18/2023	x10E3/uL	0.0-0.4
Baso (Absolute) ⁰¹	0.1		0.0	10/18/2023	x10E3/uL	0.0-0.2
Immature Granulocytes ⁰¹	0		0	10/18/2023	%	Not Estab.
Immature Grans (Abs) ⁰¹	0.0		0.0	10/18/2023	x10E3/uL	0.0-0.1

A possible link between the Epstein-Barr virus infection and autoimmune thyroid disorders

[Anna Dittfeld](#),^{✉1} [Katarzyna Gwizdek](#),² [Marek Michalski](#),¹ and [Romuald Wojnicz](#)¹

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The Epstein-Barr virus (EBV), also known as human herpesvirus 4, is a member of the Herpesviridae virus family. EBV infection can cause infectious mononucleosis (IM) in the lytic phase of EBV's life cycle. Past EBV infection is associated with lymphomas, and may also result in certain allergic and autoimmune diseases. Although potential mechanisms of autoimmune diseases have not been clearly elucidated, both genetic and environmental factors, such as infectious agents, are considered to be responsible for their development. In addition, EBV modifies the host immune response. The worldwide prevalence of autoimmune diseases shows how common this pathogen is. Normally, the virus stays in the body and remains dormant throughout life. However, this is not always the case, and a serious EBV-related illness may develop later in life. This explains the chronic course of autoimmune diseases that is often accompanied by exacerbations of symptoms. Based on the present studies, EBV infection can cause autoimmune diseases, such as systemic lupus erythematosus (SLE), multiple sclerosis (MS), rheumatoid arthritis (RA), Sjögren's syndrome, and autoimmune hepatitis. The EBV has also been reported in patients with autoimmune thyroid disorders. Although EBV is not the only agent responsible for the development of autoimmune thyroid diseases, it can be considered a contributory factor.



They Can Hide Anywhere

As you are likely thinking:

- These infections can hide out in so many places... literally everywhere.
- Chronic disease adds another layer of protection for them due to chronic inflammation and weakened immune responses.
- Biofilms create added protection and help avoid detection.
- This can be in the gut, urinary tract, blood stream, and what I am going to discuss today... the Mouth.

Built in Systemic Superhighway:

- Once rooted in their hiding place these infections begin to proliferate quietly under the radar.
- This creates toxic pools of co-infections and toxins
- These pathogens and toxins are then distributed throughout the body through the circulatory and lymphatic systems.



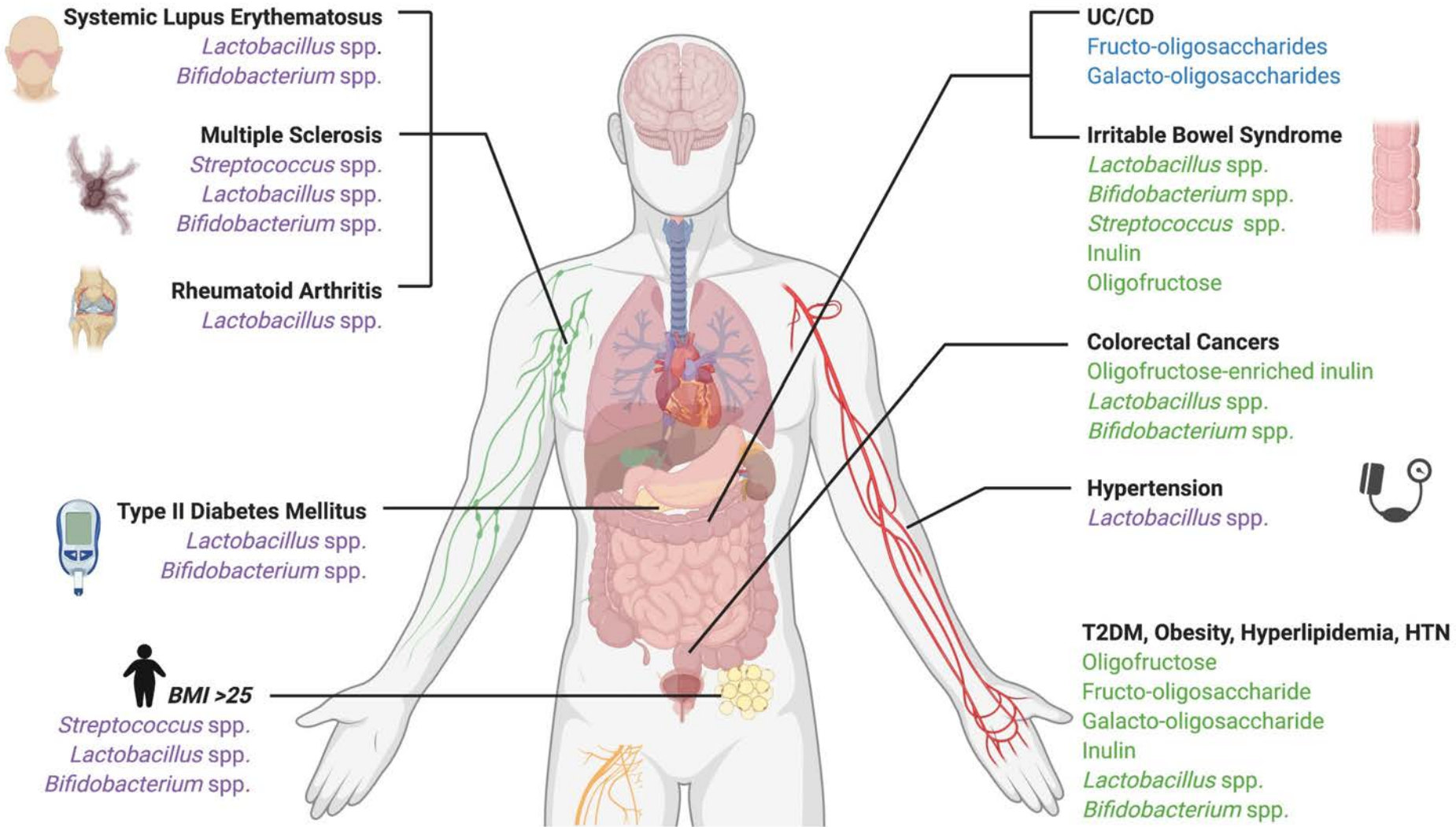
Interconnections between the Oral and Gut Microbiomes: Reversal of Microbial Dysbiosis and the Balance between Systemic Health and Disease

Brandon Khor^{1,†}, Michael Snow^{1,†}, Elisa Herrman^{1,†}, Nicholas Ray^{1,†} , Kunal Mansukhani^{1,†} ,
Karan A. Patel^{1,†}, Nasser Said-Al-Naief², Tom Maier² and Curtis A. Machida^{2,*}

- The balance between eubiotic health and dysbiotic pathology is dependent upon the diversity and quantity of specific microorganisms in the host microbiome. The interconnection between oral and systemic dysbiosis provides a common pathway for progression to autoimmune, inflammatory, and pernicious diseases.
- Although half of the bacterial species found in the GI tract have oral origins, further research that targets quantitative assessment of the oral/GI translocation may further elucidate the characteristics, etiopathogenesis, and link between oral inflammatory pathologies and systemic diseases

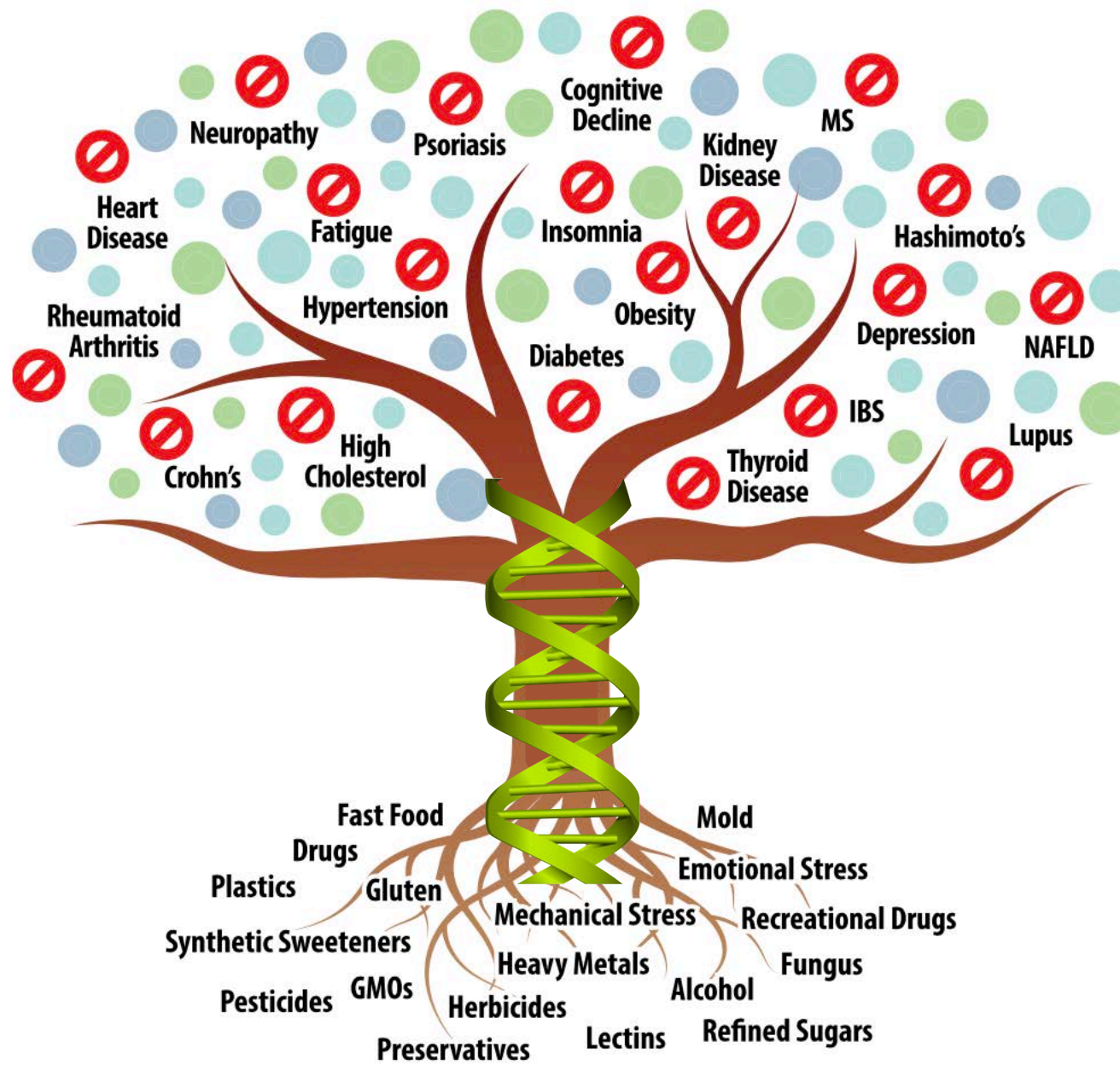


Prebiotics, Probiotics, Synbiotics



Use of prebiotics, probiotics, and synbiotics as therapeutic strategies for the reversal of microbial dysbiosis. Numerous bacterial species and dietary substrates have been shown to therapeutically shift microbiota composition and alleviate the symptoms and biomarkers of systemic diseases.





Periodontal disease and cardiovascular disease: epidemiology and possible mechanisms

Robert Genco¹, Steven Offenbacher, James Beck

Affiliations + expand

PMID: 12085720 DOI: [10.14219/jada.archive.2002.0375](https://doi.org/10.14219/jada.archive.2002.0375)

The evidence suggests a moderate association... since oral bacteria have been found in carotid atheromas and some oral bacteria may be associated with platelet aggregation, an event important for thrombosis.



Silent but Deadly

Sorry... I couldn't help myself on this one

The Prevalence of these undetected, silent infections:

- The teeth, gums, jawbone cavitations, tonsils, and sinuses are the primary sites for oral infection.
- Root Canals... the Taxidermized Tooth
- Studies suggest that over 95% of root canal-treated teeth harbor infection, and that 35% of adults have at least one root canal. When applied to the general population you can assume that one in three adults have a reticent dental infection.
- The Cleveland Clinic states that about 15 Million Root Canals are performed each year in the United States.
- Not all of them are going to be equal in terms of their negative impact but it is reasonable to say that none of them are completely free of pathogens and toxins.
- Microtubules of the teeth can stretch for 3 miles if laid end to end.

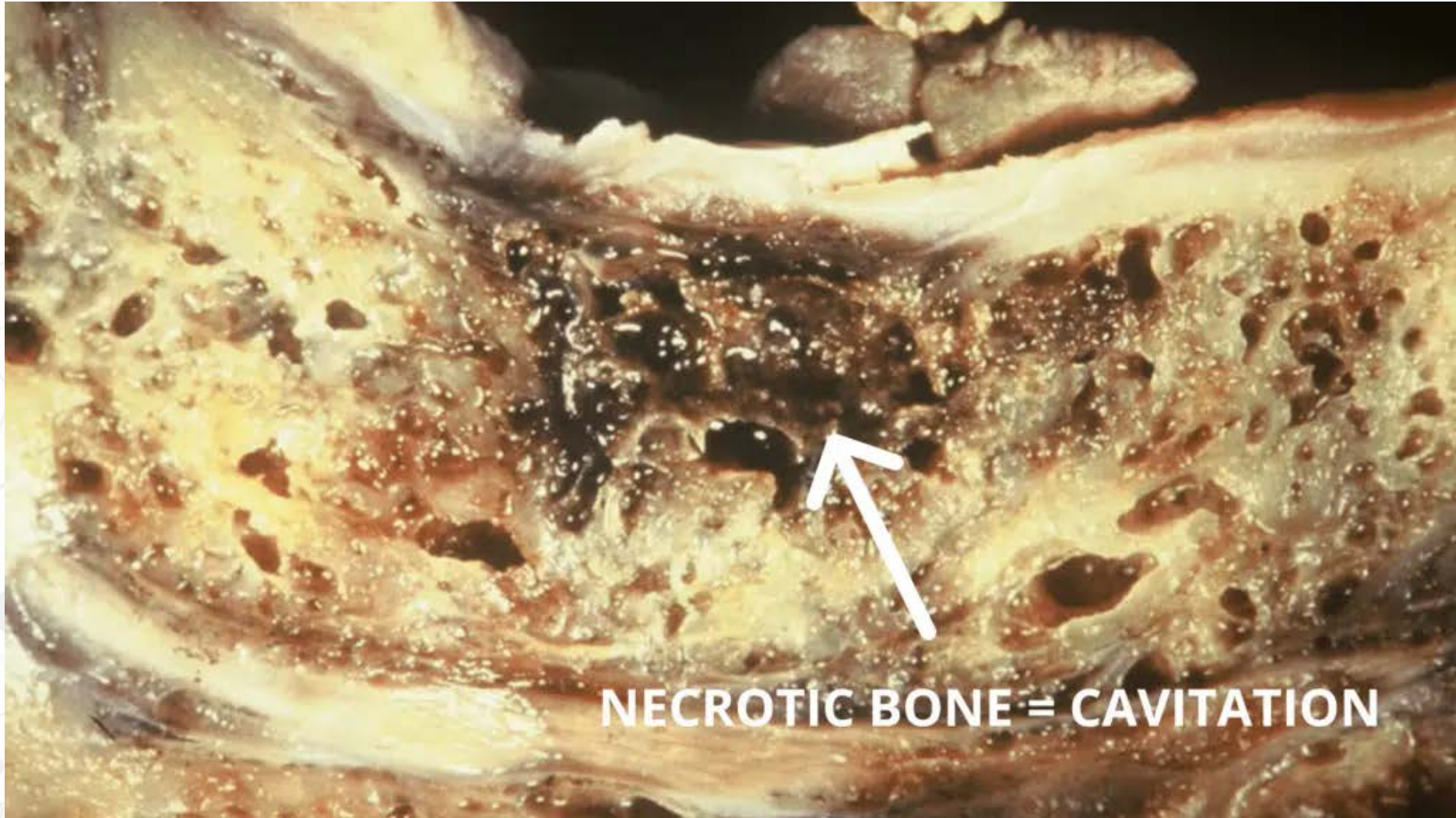


Creating Cavitations

What is a Cavitation:

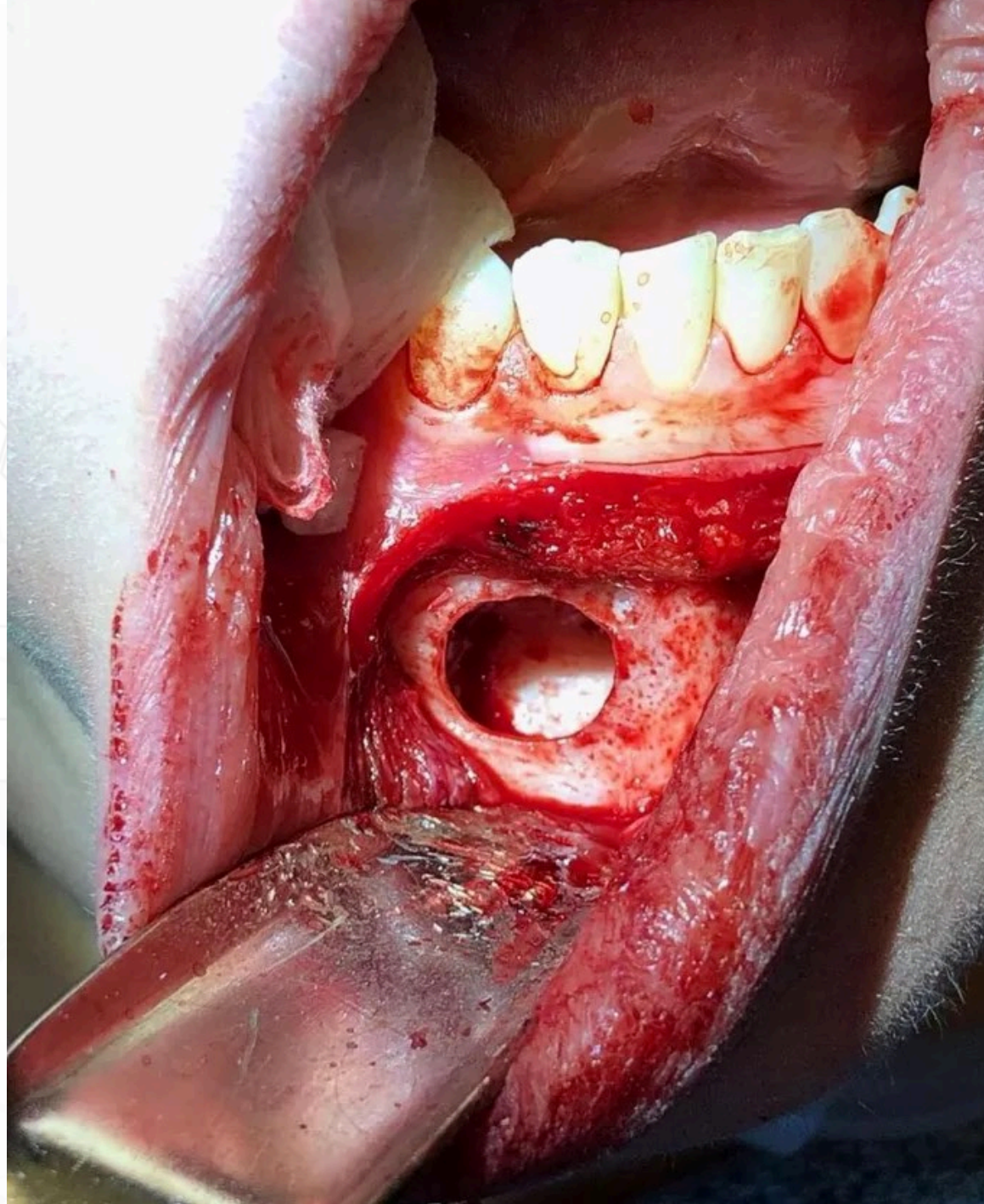
- A cavitation is a whole in the bone, usually where a tooth has been removed and the bone has not been filled in properly.
- This typically occurs when a tooth is removed but the periodontal membrane is left behind or not fully removed.
- This will stop the body from filling the space with bone and can leave behind a hole or a spongy space inside the jaw bone.
- A cavitation can form in any bone of the body and other reasons for them are traumas, poor circulation, clotting disorders, and the use of steroids.
- In terms of the most common location in the mouth is where wisdom teeth are removed or a root canal extraction.





NECROTIC BONE = CAVITATION





Common Signs Associated

A cavitation cannot be detected through visual inspection. Majority of times there are no visible signs of an infection; no redness, swelling, or even an increase in body temperature (no fever.) Despite there being no outward symptoms cavitation cause extensive jawbone destruction, which you would expect to show on a x-ray...

Unfortunately it's rarely the case that a cavitation can be accurately diagnosed or ruled out through the use of x-rays. The best and really only reliable way to diagnose the presence or absence of cavitations is through the use of a CT scan.



See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/351253118>

Eggerthia catenaformis infection originating from a dental abscess causes severe intestinal complications and osteomyelitis of the jaw

Article · April 2021

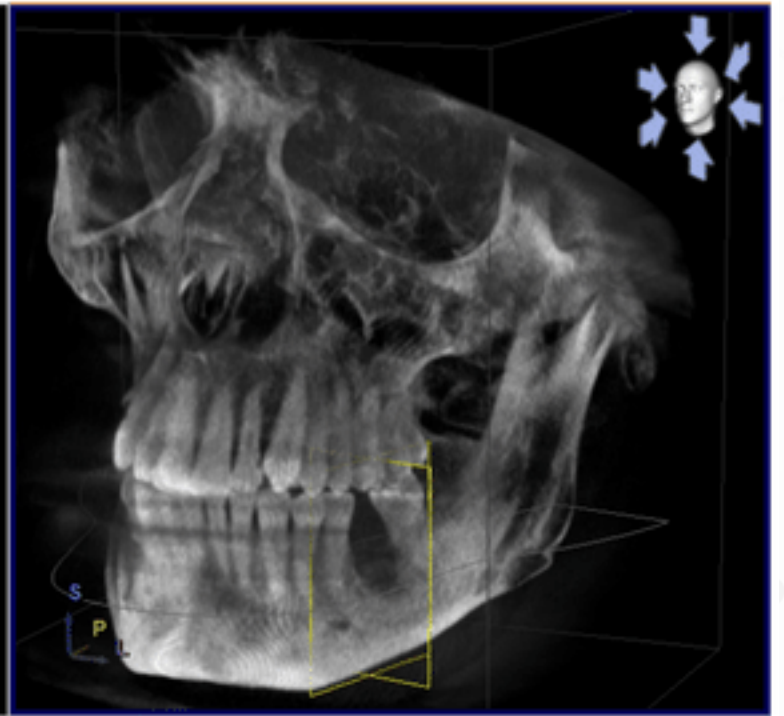
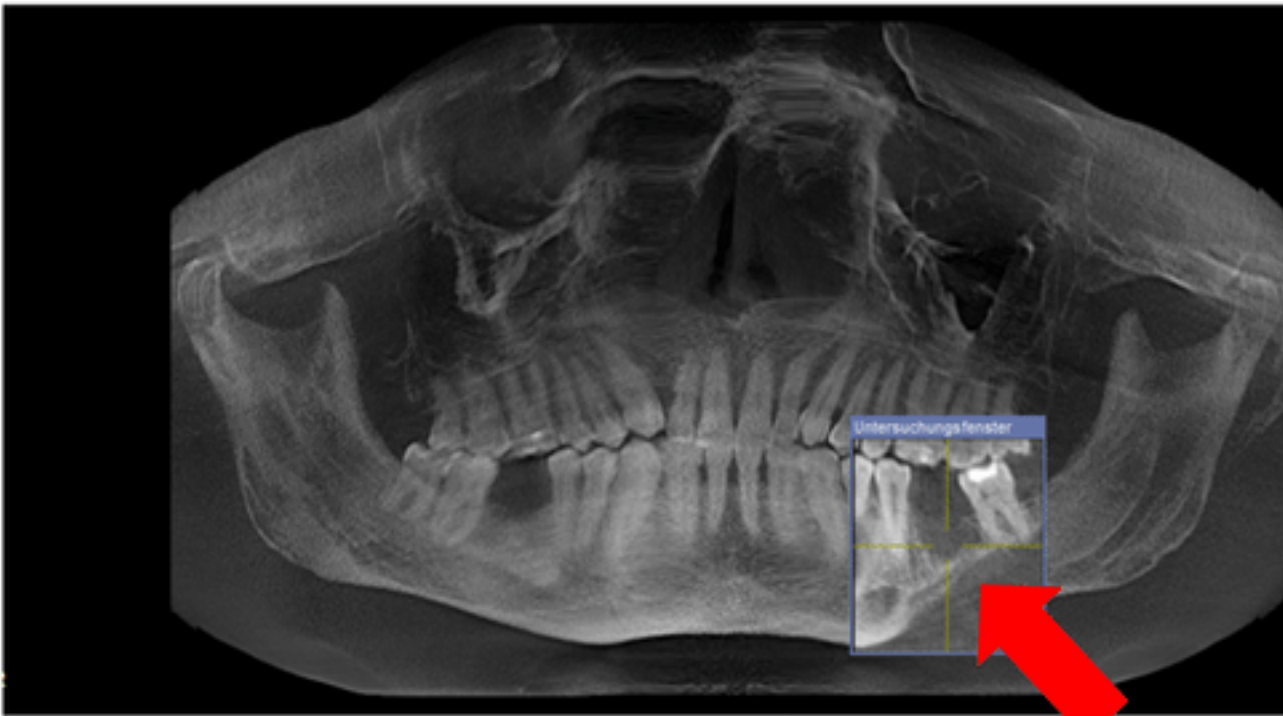
DOI: 10.3205/iprs000152

Sakkas, Andreas & Nolte, Isabel & Heil, Sebastian & Mayer, Boris & Kargus, Steffen & Mischkowski, Robert & Thiele, Oliver. (2021).

Eggerthia catenaformis infection originating from a dental abscess causes severe intestinal complications and osteomyelitis of the jaw.

GMS Interdisciplinary plastic and reconstructive surgery DGPW. 10. Doc02. 10.3205/iprs000152.

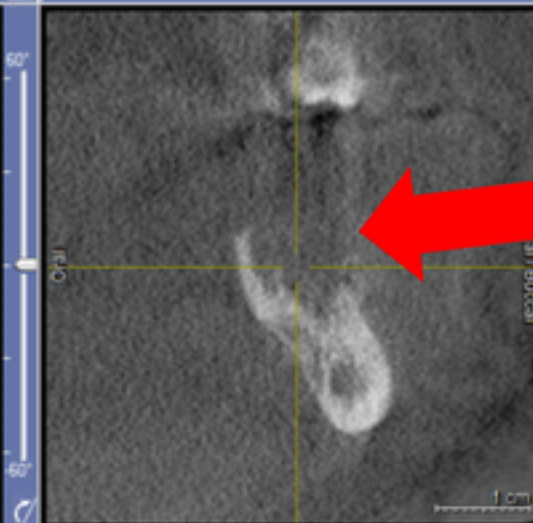
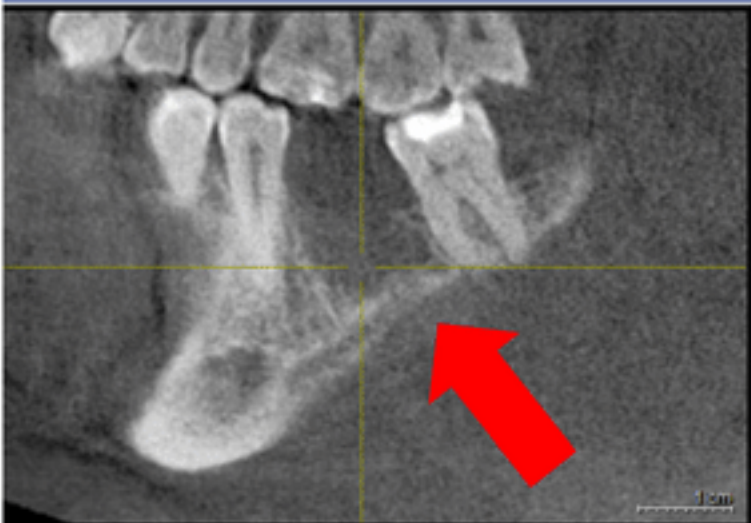




Longitudinal

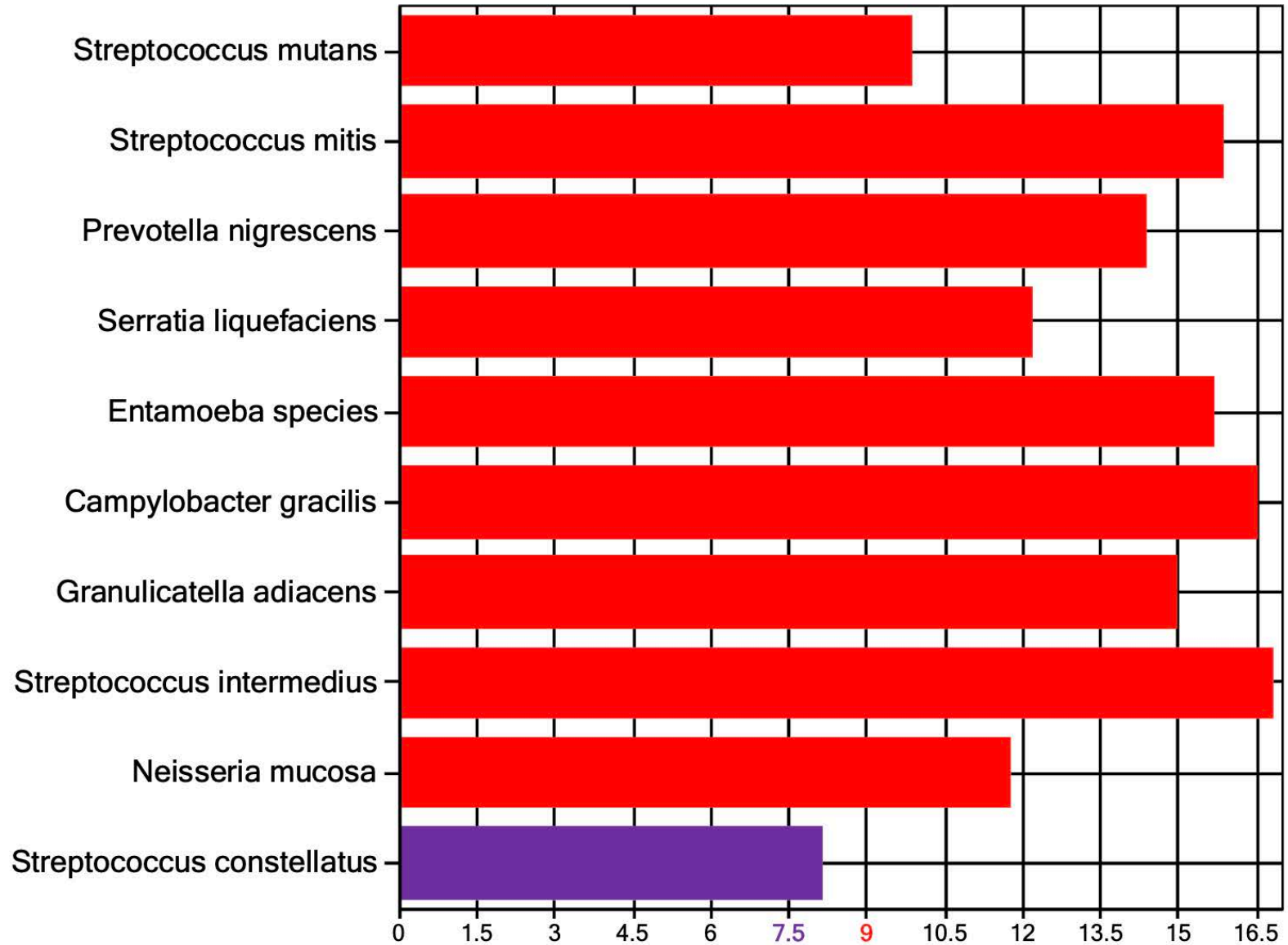
TSA

Axial (von oben)



Sample Type: #17 Cavitation

The following microbes were detected in the sample that was submitted for testing:



Streptococcus intermedius **16.83**

General Description

A member of the Streptococcus anginosus group, Streptococcus intermedius is a species of Gram-positive bacteria commonly found in the oropharynx flora and has a proclivity for abscess formation.

Symptoms of Infection

Streptococcus intermedius has a tendency to cause abscess formation most commonly in the liver and brain, but is rarely the etiologic agent in infective endocarditis. Infections are rare in adults with normal functioning immune systems.

Microbe

Granulicatella adiacens

Total Risk Factor

15.00

Clinical Significance

General Description

Granulicatella adiacens shows variable Gram staining, on long chains of cocci.

Symptoms of Infection

A rare cause of infections, Granulicatella adiacens has been implicated in a few cases of endocarditis and sepsis.

Entamoeba species

15.70

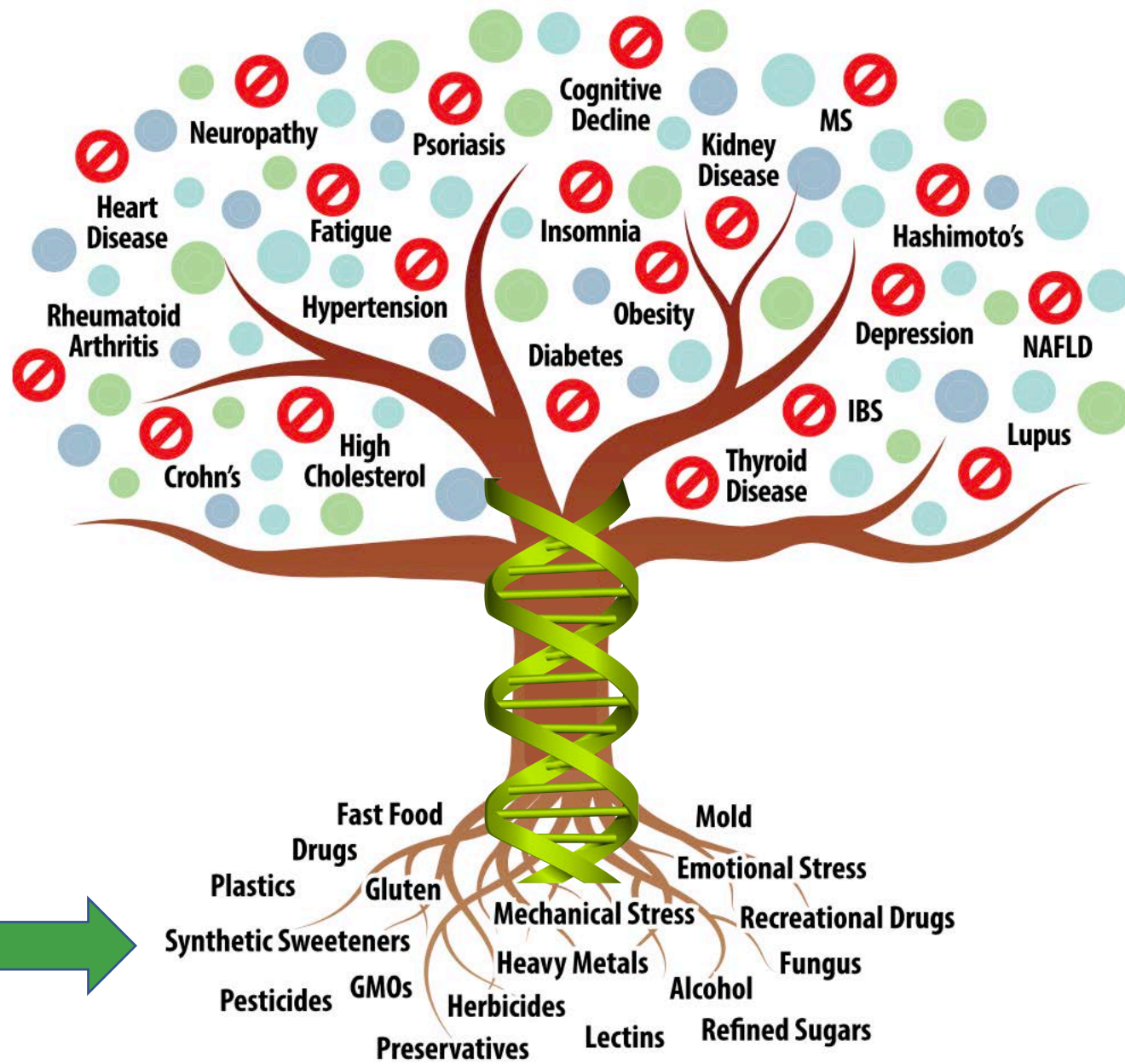
General Description

Entamoeba species (histolytica or gingivalis) is a single cell parasite usually transmitted by fecal contamination but can be transmitted by sexual contact. Entamoeba species is typically found in areas of inadequate sanitation and can cause amoebic dysentery.

Symptoms of Infection

Entamoeba species infections sometimes last for years may be accompanied by 1) no symptoms, 2) vague gastrointestinal distress, 3) dysentery (with blood and mucus). Most infections occur in the digestive tract but other tissues may be invaded. Symptoms include ulcerative and abscess pain and in rare cases intestinal blockage. Severe ulceration of the gastrointestinal mucosal surfaces occurs in less than 16% of cases. In fewer cases, the parasite invades the soft tissues, most commonly the liver.





Common Signs Associated

What we might see:

- CBC continues to show infection/irritation
- Continued sinus infection, pressure, post nasal drip, or runny nose
- Constant bad breath
- Tooth or gum sensitivity.
- Sensitive or reactive immune system



Addressing Reticient Infection

1. Properly Pull Root Canal Teeth:

- Supportive protocol before, during, and after.
- Ensure they remove the ligament.

2. Cavitation Surgery:

- Supportive protocol before, during, and after.
- Specialty office needed, not all recognized “cavitations”
- Consider testing tissue.

3. Ozone Injections:

- Inject ozone into the tissue to try and sanitize the area.

4. Wedge Protocol:

- This should already be in play before you get to this point but needs to be said and emphasized in these situations.



Find the Right Dentist

- **Not all Dentists are Created Equal**
 - These are specialty providers. Start with the websites below.
 - <https://iaomt.org/>
 - <https://iabdm.org/>
- **Not always public about these procedures.**
 - I know of a handful of Dental Offices that will do these procedures but make sure to do your homework before sending someone to a specific office.
- **Good option for a good price.**
 - American Biodental in Tijuana, MX
 - <https://americanbiodental.com/>
 - Mention Dr. Caitlin Czezowski and the Dental Detox

