

# Atypical Symptoms

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# Disclosures

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- We have NO financial disclosures
- We will be discussing "off-label" uses of multiple medications given nature of underlying disease

# Objectives

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- Identify prevalence and epidemiology of "atypical" palliative care symptoms
- Demonstrate broad overview of pathophysiology of symptoms
- Provide both empiric and etiology-based approach to treatment of symptoms



# Introduction

- Atypical/Orphan symptoms are those that are rarely screened for however can lead to significant impact on QOL

Lack of assessment



Lack of research and evidence



Lack of evidence-based, effective treatments/guidelines

Please circle the number that best describes how you feel NOW:

No Pain	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Pain
No Tiredness <i>(Tiredness = lack of energy)</i>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Tiredness
No Drowsiness <i>(Drowsiness = feeling sleepy)</i>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Drowsiness
No Nausea	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Nausea
No Lack of Appetite	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Lack of Appetite
No Shortness of Breath	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Shortness of Breath
No Depression <i>(Depression = feeling sad)</i>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Depression
No Anxiety <i>(Anxiety = feeling nervous)</i>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Anxiety
Best Wellbeing <i>(Wellbeing = how you feel overall)</i>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Wellbeing
No _____ Other Problem <i>(for example constipation)</i>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible _____

Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. J Pain Symptom Manage. 2011



# Pruritus

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# Pruritus: Epidemiology

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Cancer: 6-24% projected to have a frequency rate of 6% for general palliative care setting and between 5% and 24% occurrence for patients with 'incurable' cancer diagnoses



Cholestasis:

20-25%: end stage liver disease

100%: primary biliary cholangitis

~45%: Malignant biliary obstruction



End stage renal disease:

Occurs in chronic and not acute renal failure

55-80% total

40-50% on dialysis

•Plasma Histamine concentrations 5x greater in dialysis w/ pruritus vs w/o pruritus



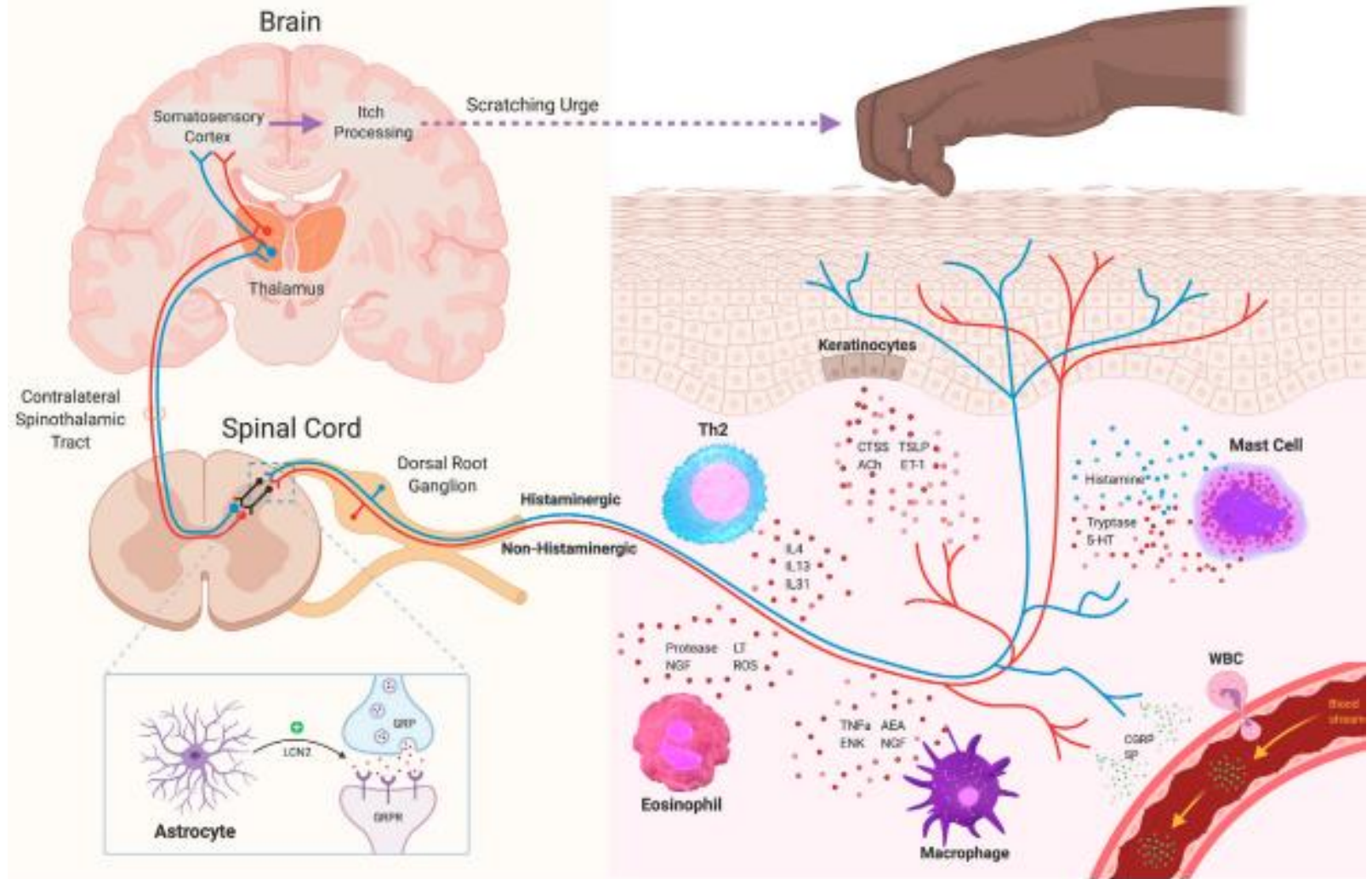
Opioids Induced:

Spinal administration>>> systemic (20-90% vs 1-10%)

More common with natural opiates (codeine, morphine, etc) compared to semi-synthetic and synthetic opioids

# Pruritus: pathophysiology

- Histaminergic vs nonhistaminergic pathway
  - Histaminergic
    - Acute
    - Least common path seen in palliative
  - Non-Histaminergic



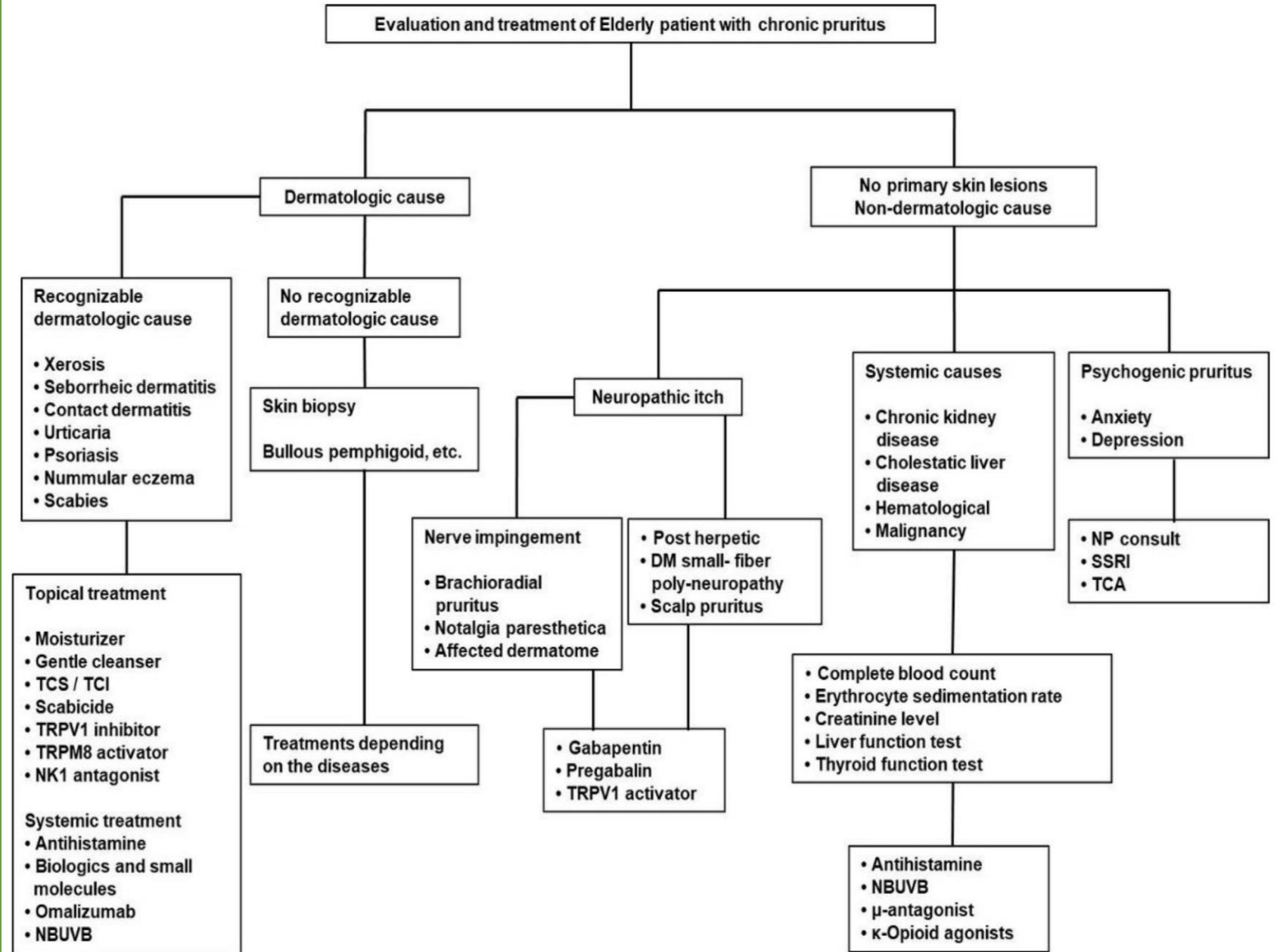
# Pruritus: Pathophysiology

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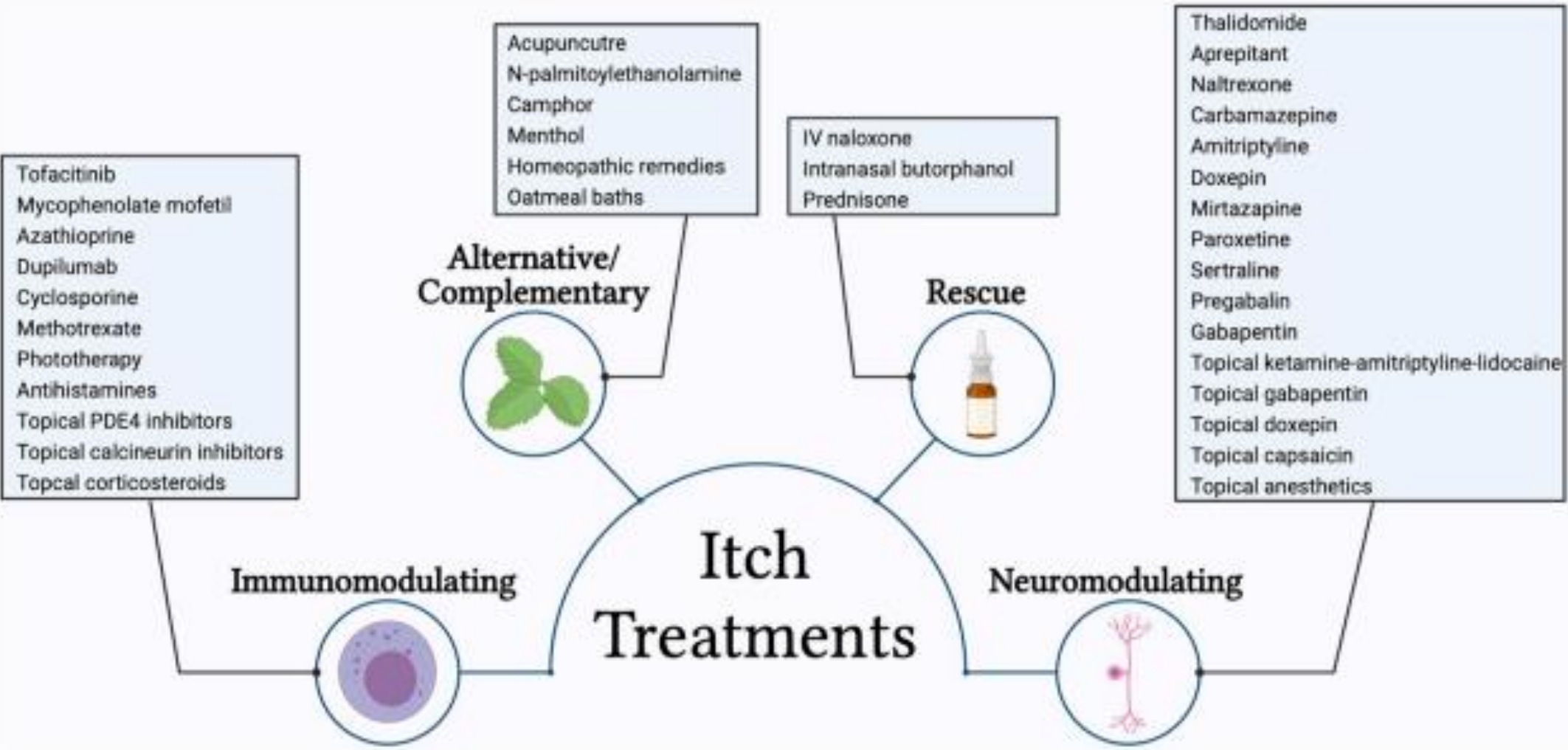
- Prurioreceptive
  - Broad category encompassing cutaneous, systemic, and drug-induced
- Neuropathic
  - Post-burn, post-herpetic, post stroke
- Neurogenic
  - Opioid
- Psychogenic
  - Commonly linked to psychiatric disorders



# Pruritus: Evaluation



# Treatment by Mechanism of Action



# Pruritus: Empiric based treatment

- Good skin care is backbone to management of pruritus management
- Recalcitrant Itch typically requires combination therapy with topical and systemic

**Table 1: General measures and topical remedies of pruritus management**

<b>General measures</b>	<b>Topical remedies</b>
Prevent boredom and anxiety	Emollients and moisturisers
Stay away from heat	1-2% menthol or phenol
Stay in a cool, humidified environment	0.025-0.5% capsaicin
Wear loose, nonirritating clothing	2.5% lidocaine cream
Avoid fragrant topical agents	Corticosteroids
Avoid intake of caffeine	
Trim fingernails and wear cotton gloves if scratching is uncontrolled or occurs during sleep	
Treat skin infections appropriately	
Discontinue drugs that may cause pruritus	
Eliminate common skin allergens	
Apply cold application	
Provide medicated baths	
Apply topical medications	

# Hepatic Etiology Treatments

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- Hallmark of disease is sensation is not diminished by scratching
- Treatment
  - First line
    - Cholestyramine (4-16 g daily dose divided)
      - Cheap however not shown to be significantly efficacious
  - Second line
    - Rifampin (150-300 mg twice daily)
    - SSRIs
    - Opioid receptor modulators: naltrexone 2 mg daily

# Renal Etiology Treatments

## Optimize dialysis

- Increase Kt/v
- High flux dialyzer
- Adherence

## Optimization of bone mineral disease

- Parathyroidectomy (low evidence)

## Topical

- Emollients; high water content
- Capsaicin and pramoxine
- Tacrolimus

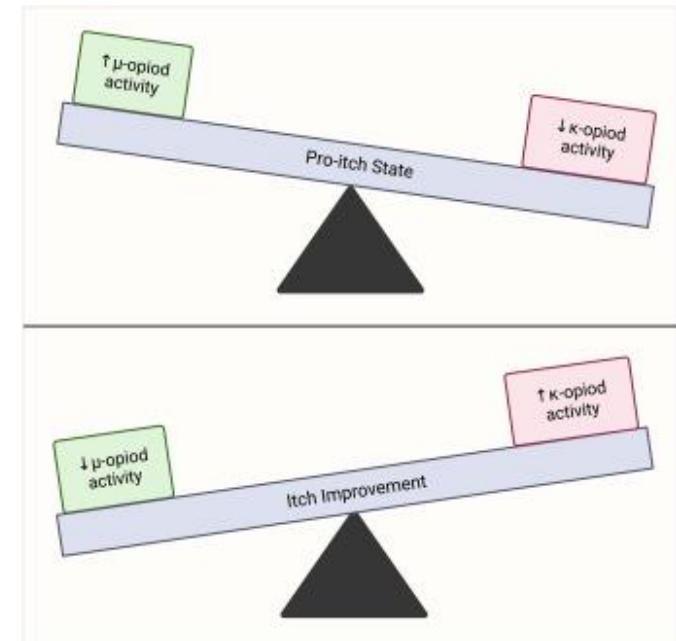
# Renal Etiology Treatments- Oral Pharmacologic

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- Antihistamines
- Antiepileptics: Gabapentin or Pregabalin
- SSRIs (effects seen 24-48 hours following initiation)
- Opioid receptor modulators: Naltrexone 2 mg daily
- Montelukast: CysLT1 leukotriene receptor antagonist
- Evening primrose oil: rich in essential fatty acids
- Oral activated charcoal (6 g/daily)
- Thalidomide

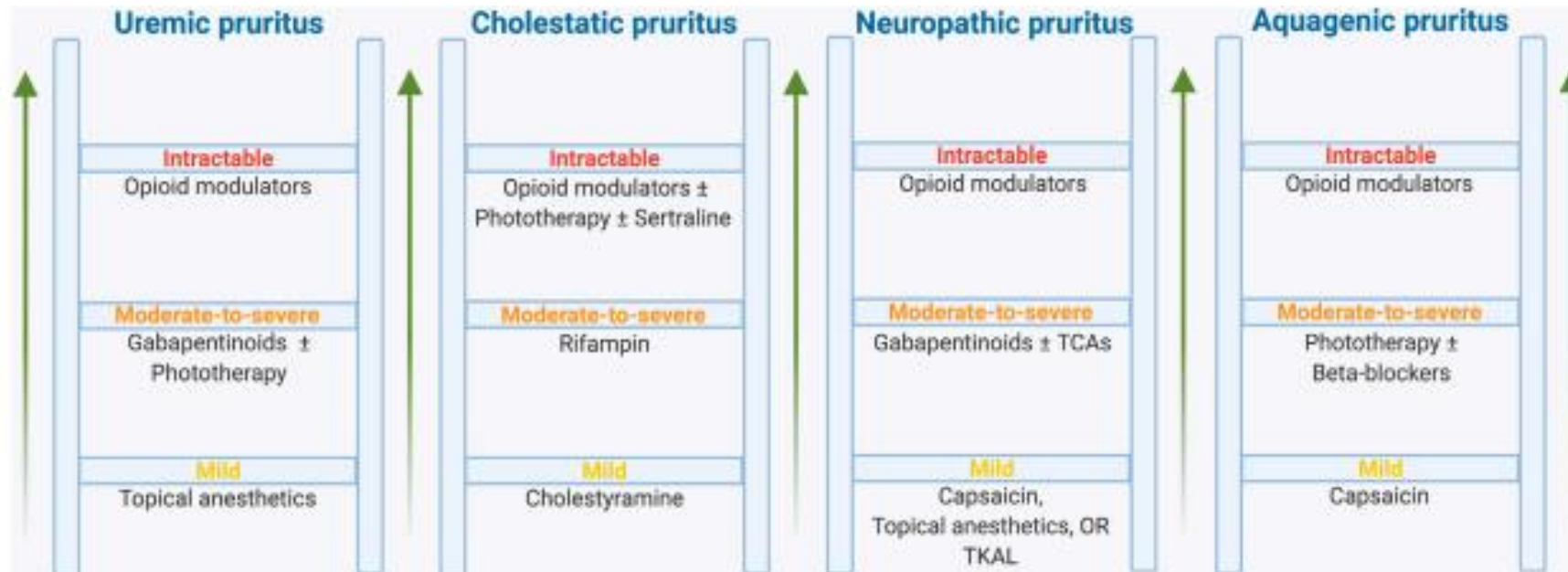
# Opioid induced pruritus

- First line
  - Transition to a different opioid
  - Addition of bupivacaine to spinal opioids to aid with itch
- Second Line
  - Paroxetine or mirtazapine: Low dose
    - Effects typically seen within first 24-48 hours
- Difficult to treat given opioid antagonist may precipitate withdrawal/reverse analgesia



# Pruritus Summary

- Significantly impacts QOL
- Antihistamines are not effective in most chronic pruritus
- Treatment matches etiology in addition to treatment of underlying disease



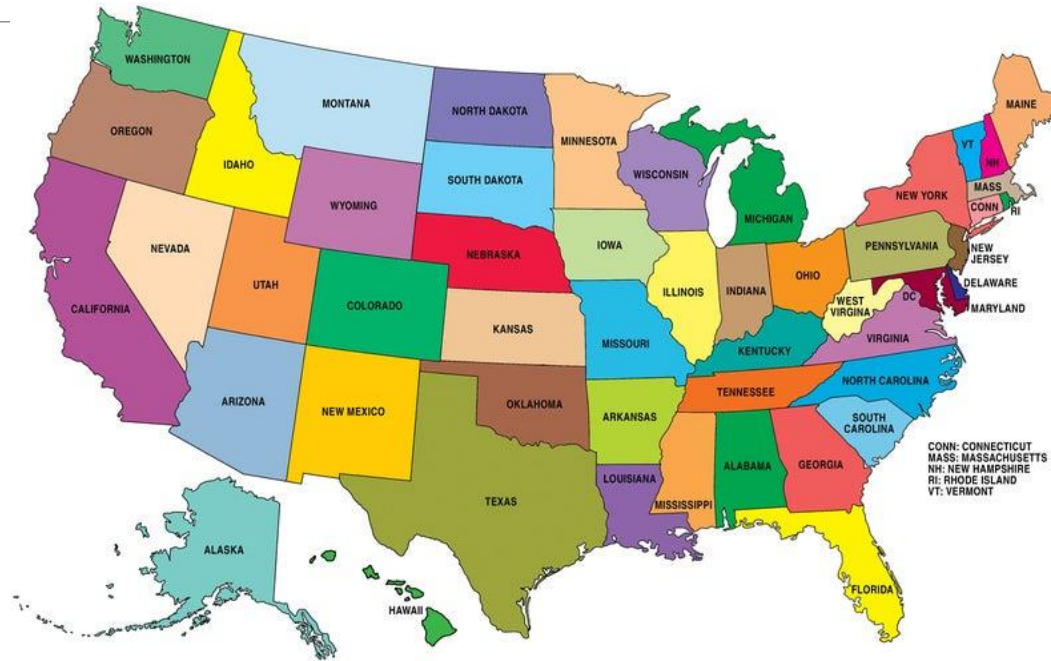




# Dysgeusia



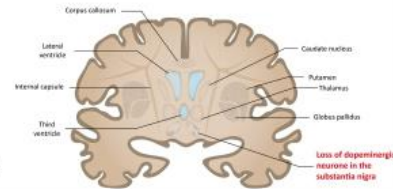
# Epidemiology



5-10%

Parkinson's Disease

9%



Advanced cancer

86%

# Epidemiology, oncology

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All Cancer	14-100%
Advanced Cancer	86%
Highest Risk Cancer	Head and neck
Highest Risk Chemo	Tyrosine Kinase Inhibitors, Taxanes

Prevalence among patient receiving chemo + radiation = 76%

- Just radiation: 66.5% (55-88% if head and neck)

Still there after completion of radiation: 15%

Still there after completion of chemo: 56%

# Types of Dysgeusia

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Hypo or ageusia (Diminished taste)

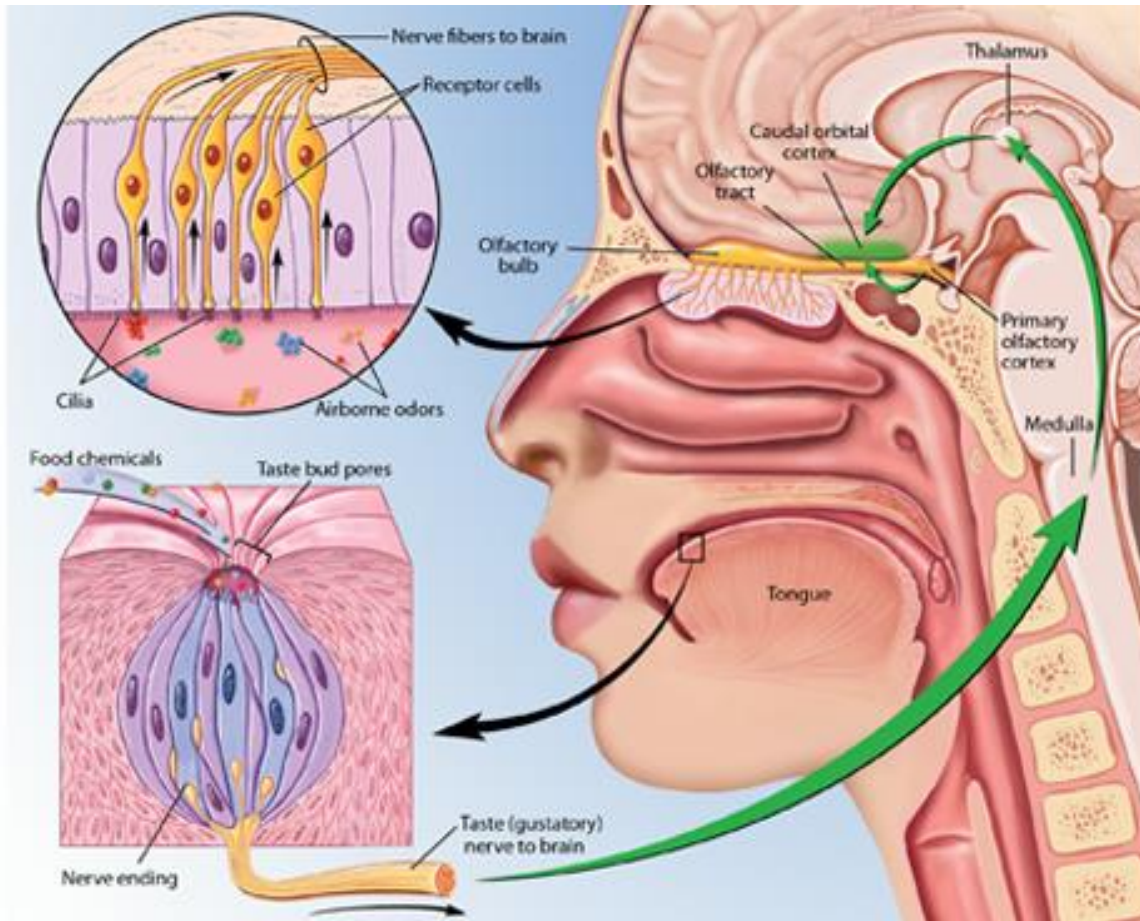
Hypergeusia (Augmented taste)

Para or Phantogeusia (Metallic or other taste distortion or wrong taste perception)

Glossodynia/Stomatodynia (burning mouth syndrome)

**\*Hyper/Hypoosmia**

# Relevant anatomy



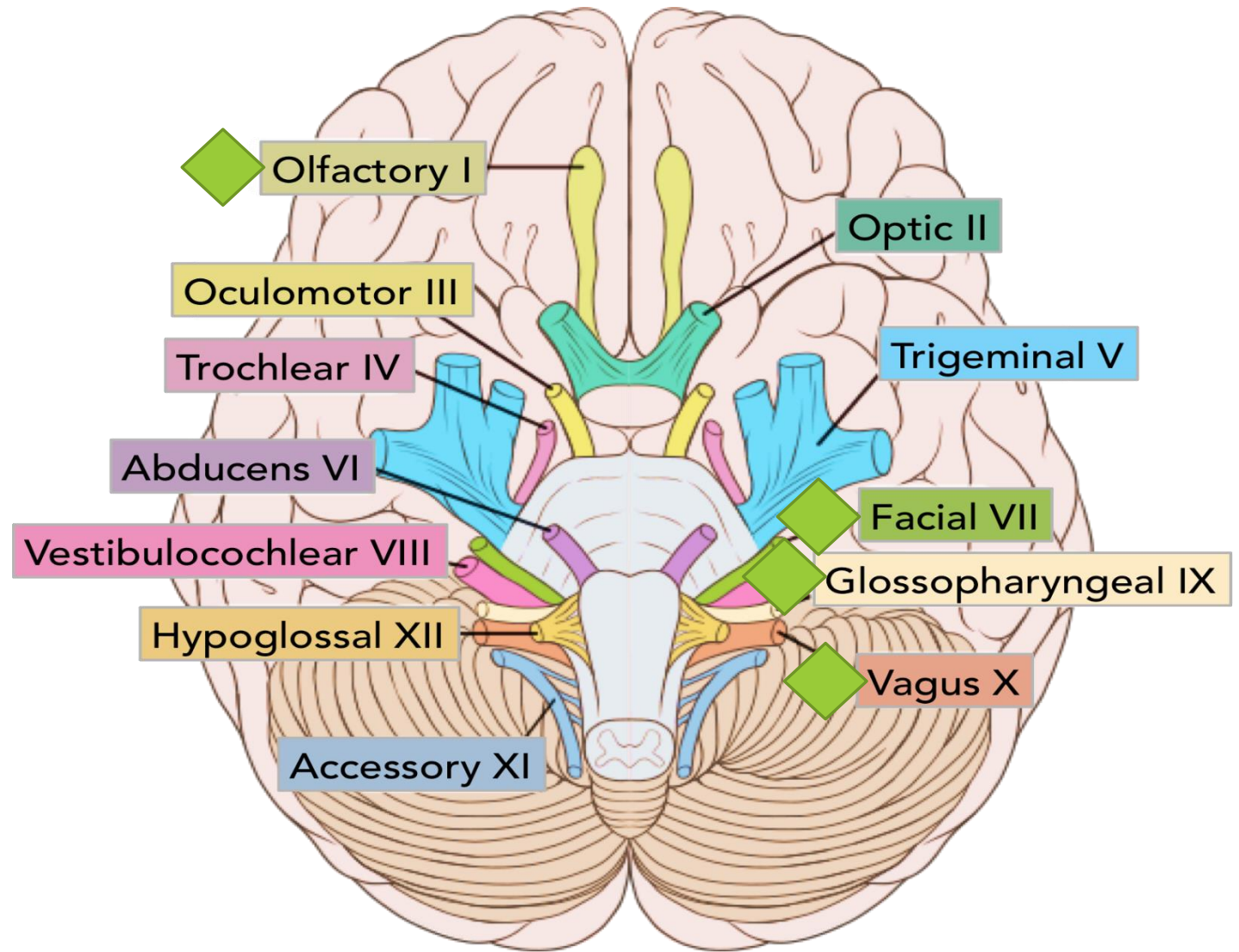
Gustatory receptor cells in taste buds on:

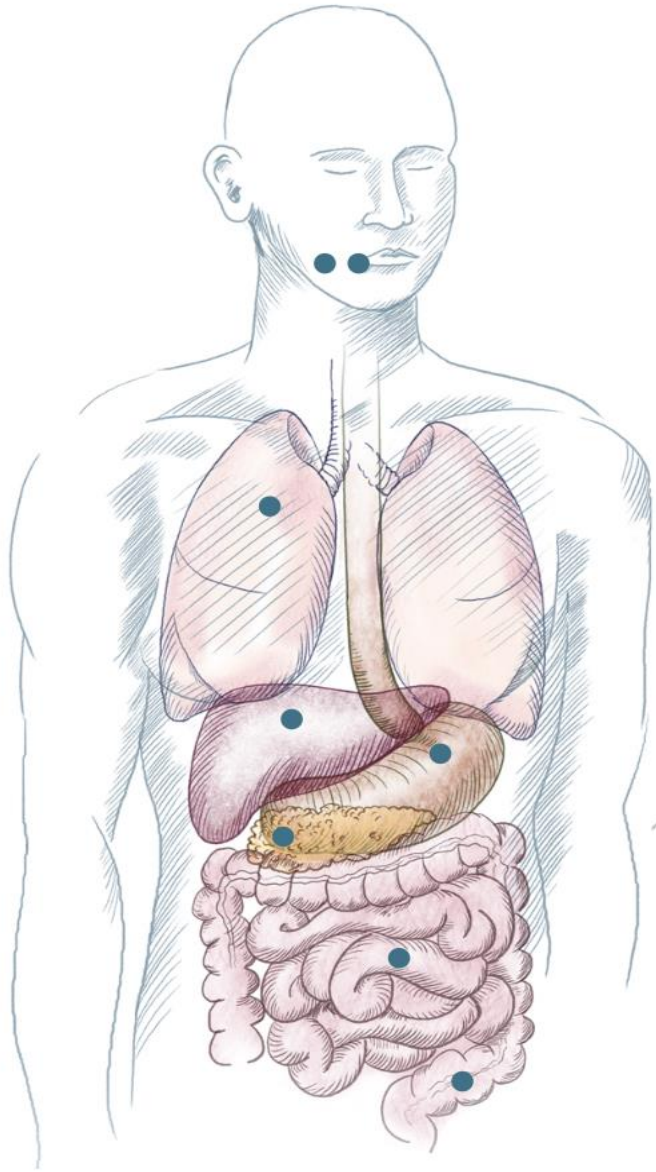
- Dorsal & lateral surfaces of the tongue
- Soft palate
- Uvula
- Larynx
- Pharynx
- Epiglottis
- Esophagus



Taste sensations are transported via:

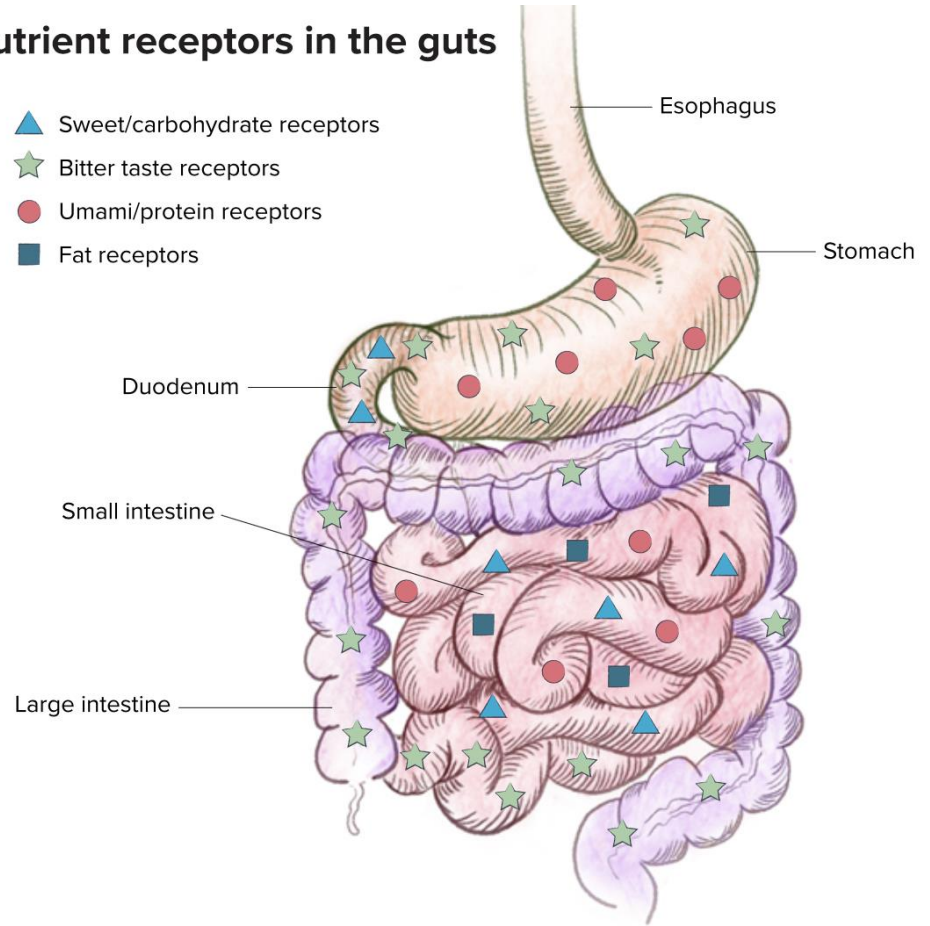
- VII innervates the anterior third of the tongue and the palate
- IX innervates the back of the tongue
- X tongue and epiglottis
- II Olfactory





## Nutrient receptors in the guts

- ▲ Sweet/carbohydrate receptors
- ★ Bitter taste receptors
- Umami/protein receptors
- Fat receptors



# Pathophysiology

Mechanism	Associated Cause
Death of taste buds	Chemotherapy & radiation, infection, inflammation
Dysfunction of taste buds (Impedance of detection of taste stimulus)	Infection or Inflammation
Damage to signal transduction pathway or other neuropathy	Systemic disease, Direct structural damage
Changes to oral environment	Systemic disease, poor dental hygiene
Altering structure of taste pores	Radiation
Thinning of papilla epithelium	Radiation



# Etiology group One: Local or Systemic Disease

Upper Respiratory: Recent ear or respiratory infections

Cranial nerve: Bell's palsy, cranial nerve deficits

Lips and mouth: Cheilitis, mucositis, thrush or dry mouth

Oral cavity: Poor oral hygiene or dental procedures or dental prostheses. Smoking

Endocrine: Hypothyroidism or Cushings

Systemic Disease: ESRD, liver dysfunction, DM, HTN

Electrolyte disturbance: Predominantly sodium, B12 and zinc

# Etiology group Two: Medications

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## Medication Groups Frequently Associated with Dysgeusia

Antimicrobial medicines

Angiotensin-converting enzyme (ACE) inhibitors

Antiarrhythmic medications

HMG-CoA reductase inhibitors (statins)

Proton pump inhibitors (PPI)

Anti-retroviral medications

Anti-epileptic medications

Diuretics

Dopamine precursor

Protein kinase inhibitors

Anticholinergic medicines

Psychiatric medicines

Gout medicines

Muscle relaxants

Endocrine medications

Chemotherapeutic agents

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## Common Medicines in the Groups Associated with Dysgeusia

Macrolides, fluoroquinolones, ampicillin, metronidazole, tetracycline, trimethoprim-sulfamethoxazole, amphotericin B, terbinafine and other antimycotic drugs

Captopril, ramipril

Amiodarone, procainamide

Atorvastatin, simvastatin

Atazanavir, darunavir, and ritonavir

Carbamazepine, phenytoin, topiramate

Acetazolamide

Levodopa

Sunitinib, erlotinib, imatinib

Antispasmodics, antimuscarinics, tricyclic anti-depressants

Lithium, aripiprazole

Colchicine, allopurinol

Baclofen

Antithyroid medications, corticosteroids, levothyroxine

5-fluorouracil, cisplatin Taxanes

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Opioids

Taste d/o    Smell d/o

# Drugs from top 100 in the United States in 2017 that elicit taste or smell complaints or disorders in some individuals

Drug class	Drugs from top 100 in the US in 2017	Taste disorders <sup>2,3,4,5</sup>	Smell disorders <sup>6</sup>
Anti-infectives	Amoxicillin	Yes	Yes
	Azithromycin	Yes	Yes
	Ciprofloxacin	Yes	Yes
Anti-inflammatory anti-pyretic and/or analgesic agents	Aspirin	Yes	
	Diclofenac	Yes	
	Ibuprofen	Yes	
	Acetaminophen	Yes	
	Tramadol	Yes	
Antihistamines and antiallergenic agents	Loratadine	Yes	
	Fluticasone	Yes	Yes
	Prednisone		Yes
Antihypertensives and cardiovascular agents	Amlodipine	Yes	Yes
	Diltiazem	Yes	Yes
	Enalapril	Yes	Yes
	Furosemide	Yes	
	Hydrochlorothiazide	Yes	
	Lisinopril	Yes	
	Losartan	Yes	
	Metoprolol	Yes	
	Propranolol	Yes	
	Spironolactone	Yes	
	Triamterene	Yes	
	Antilipidemics	Atorvastatin	Yes
Lovastatin		Yes	Yes
Pravastatin		Yes	Yes
Simvastatin		Yes	
CNS drugs/Sympathomimetics	Amphetamine	Yes	
Endocrine and diabetes drugs	Glipizide	Yes	
	Insulin	Yes	
	Metformin	Yes	
	Levothyroxine	Yes	Yes
Gastrointestinal drugs	Omeprazole	Yes	
	Ranitidine	Yes	
Psychopharmacologic agents	Amitriptyline	Yes	
	Bupropion	Yes	
	Citalopram	Yes	
	Fluoxetine	Yes	
	Paroxetine	Yes	
	Sertraline	Yes	
	Trazodone	Yes	
	Venlafaxine	Yes	
	Alprazolam	Yes	
	Clonazepam	Yes	
	Diazepam	Yes	
	Zolpidem	Yes	
	Nose throat and pulmonary agents	Albuterol	Yes
Vitamins minerals nutrients and related compounds	Ergocalciferol	Yes	
	Potassium	Yes	

50/100

Etiology group Three: idiopathic

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# Treatment Options

# Treatment approach: Non-pharmacologic

Table 2: Summary of studies examining behavioral modification

Author/Year	Suggested strategies
Bernhardson et al. 2009	<ol style="list-style-type: none"><li>1. Strategies related to food and eating e.g., avoid specific food</li><li>2. Focusing on mouth e.g., use chewing gum</li><li>3. Avoiding odors e.g., staying away from smoke, increased cleanliness</li><li>4. Other strategies e.g., going out for fresh air, relaxation</li></ol>
Maureen et al 2009	<ol style="list-style-type: none"><li>1. Avoiding strong smell</li><li>2. Eating blander food</li><li>3. Drinking more water with food</li><li>4. Oral care before eating</li><li>5. Eating smaller more frequent meals</li></ol>
Boltong et al 2012	<p>A. Patient's strategies:</p> <ol style="list-style-type: none"><li>1. Just go on with things</li><li>2. Seeking specific food such as ginger, soy sauce, Worcestershire sauce</li><li>3. Adding more seasoning to food</li><li>4. seeking highly salty food</li></ol> <p>B. Carer strategies:</p> <ol style="list-style-type: none"><li>1. Buying patient's favorite food</li></ol>



Study protocol | [Open Access](#) | [Published: 04 July 2019](#)

# Hypoglossal acupuncture for acute chemotherapy-induced dysgeusia in patients with breast cancer: study protocol of a randomized, sham-controlled trial

[Heidemarie Haller](#) , [Taige Wang](#), [Romy Lauche](#), [Kyung-Eun Choi](#), [Petra Voiß](#), [Sabine Felber](#), [Holger Cramer](#), [Beyhan Ataseven](#), [Sherko Kümmel](#), [Anna Paul](#) & [Gustav Dobos](#)

[Trials](#) **20**, Article number: 398 (2019) | [Cite this article](#)

**1245** Accesses | **1** Altmetric | [Metrics](#)

Currently recruiting still, so stay tuned....

# Treatment approach: pharmacologic

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1

Treat identified reversible causes (ex, thyroid medicine, electrolyte disturbances, etc)

2

Empiric therapy



Comment

> [Evid Based Dent. 2018 Jun;19\(2\):60-61. doi: 10.1038/sj.ebd.6401312.](#)

# Taste disturbances – are there any effective treatments?

[Michelle Michelson](#)<sup>1</sup>, [Analia Veitz-Keenan](#)<sup>1</sup>

Affiliations + expand

PMID: 29930370 DOI: [10.1038/sj.ebd.6401312](#)

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# Dysosmia and Dysgeusia: A Patient's Nightmare and an Opportunity for Learning

A case of severe smell and taste disturbance resulting in weight loss and impaired quality of life offers an opportunity to clarify terms and understand treatment options.

Ronald Devere, MD

73M

Parosmia that could be triggered by any odor -“horrible,” sour, metallic taste

Lost 80 pounds. He required a feeding gastrostomy tube because he couldn't even sip water without getting these symptoms

Extensively tested by his family physician and otorhinolaryngologist with imaging and bloodwork.

Every one of these tests was normal or nonspecific in results

# Dysosmia and Dysgeusia: A Patient's Nightmare and an Opportunity for Learning

A case of severe smell and taste disturbance resulting in weight loss and impaired quality of life offers an opportunity to clarify terms and understand treatment options.

Ronald Devere, MD

Started on zinc gluconate and gabapentin

Improving after one week

Gabapentin uptitrated to 1200mg per day

Eventually improved enough to get off tube feedings





# Why?



Zinc deficiency (as well as excess) is known to cause taste disturbance

# Zinc

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## Best-studied intervention

Specifically cancer  
(especially breast)

Specifically radiation

Mixed  
groups

Idiopathic Dysgeusia

Specifically Zn deficiency

Mixed results

Review Article | Published: 24 November 2020

# The effects of zinc on radiation-induced dysgeusia: a systematic review and meta-analysis

[Woo J. Chi](#) ✉, [Jeffrey N. Myers](#), [Steven J. Frank](#), [Ruth A. Aponte-Wesson](#), [Adegbeniga O. Otun](#), [Graciela M. Nogueras-González](#), [Yisheng Li](#), [Yimin Geng](#) & [Mark S. Chambers](#) ✉

[Supportive Care in Cancer](#) **28**, 1–12(2020) | [Cite this article](#)

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“Zinc-based therapy reduces the incidence of RID but has a minimal effect on ongoing RID”

**Dose:** Zinc gluconate 30-50mg TID

## Side Effects

Low doses: nausea, vomiting, diarrhea, metallic taste, kidney and stomach damage, fatigue and other side effects

Medium doses: might decrease how much copper the body absorbs which may cause anemia

>100 mg of supplemental zinc daily long-term increases risk of developing prostate cancer







## Why?

Antioxidant and important co-factor in aerobic cellular metabolism (Krebs cycle)

It is used in the body to break down carbohydrates and to make energy for the other organs in the body

# Idiopathic dysgeusia; an open trial of alpha lipoic acid (ALA) therapy

F Femiano <sup>1</sup>, C Scully, F Gombos

Affiliations + expand

PMID: 12521319 DOI: [10.1054/ijom.2002.0276](https://doi.org/10.1054/ijom.2002.0276)

22 patients with idiopathic dysgeusia, an altered perception of taste, matched for age and sex, for an open trial of alpha lipoic acid compared with placebo

200 mg every 8 hours

Significant improvement in patients using ALA vs controls

> [Oral Dis.](#) 2008 Sep;14(6):529-32. doi: 10.1111/j.1601-0825.2007.01414.x. Epub 2008 Feb 10.

# Alpha-lipoic acid treatment of 31 patients with sore, burning mouth

J C Steele <sup>1</sup>, A J Bruce, L A Drage, R S Rogers 3rd

Affiliations + expand

PMID: 18266840 DOI: [10.1111/j.1601-0825.2007.01414.x](#)

47 patients  
prescribed  
ALA



35 available for  
follow-up



31 took it as  
prescribed



11 (35%)  
reported  
improvement

**Dose:** Alpha Lipoleic-Acid 200mg TID

## Side Effects

Tend to be rare and mild, nausea and/or rash

Can cause hypoglycemia in combination with insulin or other diabetic drugs



# Why?

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# Pathophysiology

Mechanism	Associated Cause
Death of taste buds	Chemotherapy & radiation, infection, inflammation
Dysfunction of taste buds (Impedance of detection of taste stimulus)	Infection or Inflammation
Damage to signal transduction pathway or other neuropathy	Systemic disease, Direct structural damage
Changes to oral environment	Systemic disease, poor dental hygiene
Altering structure of taste pores	Radiation
Thinning of papilla epithelium	Radiation



(gabapentin) AND (dysgeusia)



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3 out of 5 specifically on burning mouth syndrome  
1 specifically for COVID-associated dysgeusia



# Dysgeusia Summary

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- ❑ Dysgeusia has significant impact on QoL
- ❑ Disease & Treatment options can be the cause
- ❑ Treatment options are limited and not well supported
  - ❑ Zinc has mixed results
  - ❑ Alpha-lipoic acid – usually well tolerated, limited data
  - ❑ Limited evidence for gabapentin

# Hiccups

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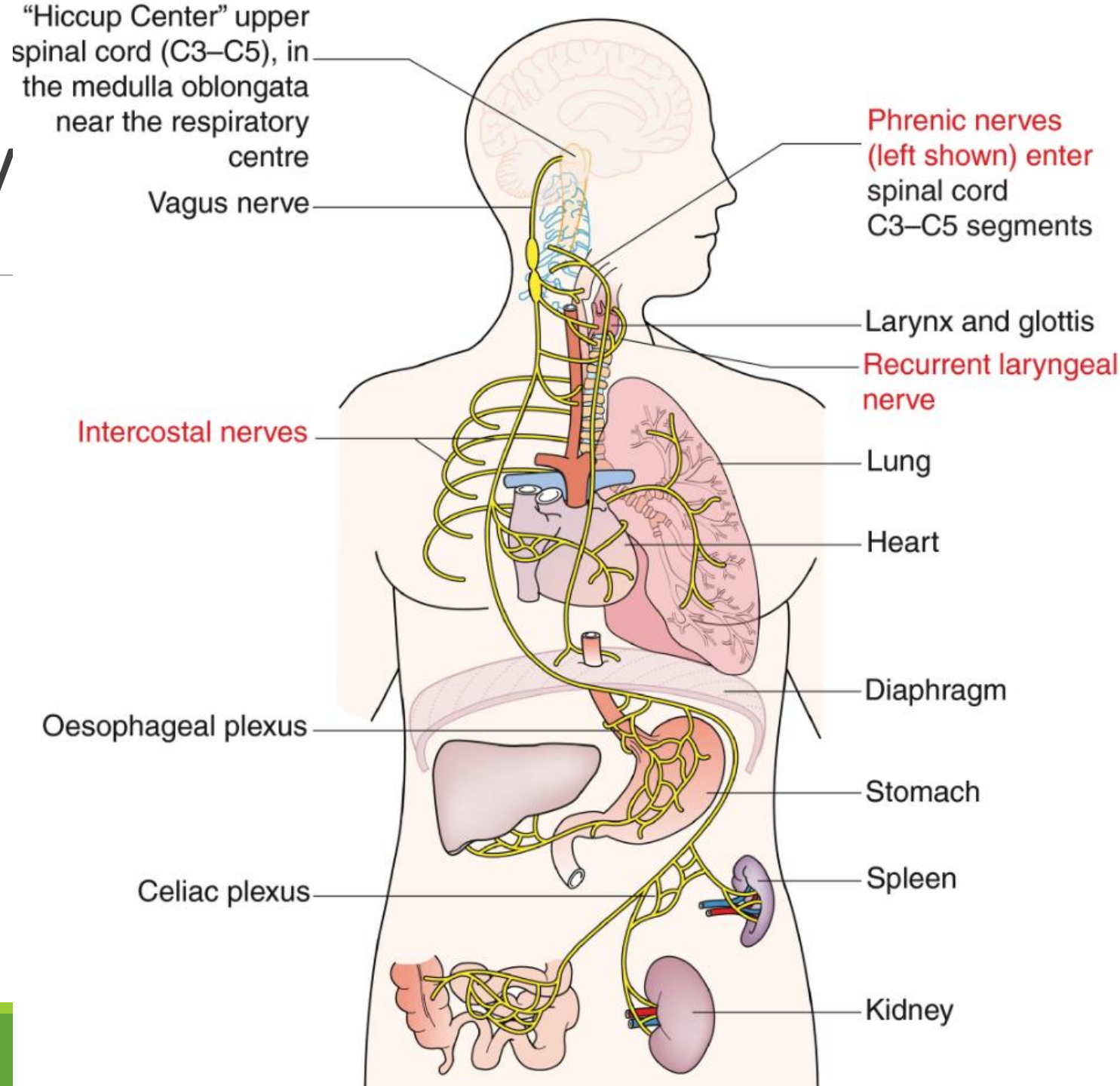
THE ACT OF CATCHING  
ONE'S BREATH WHILE  
SOBBING

# Epidemiology

- Very common, however no clear prevalence w/o clear racial, geographic, or SES variations noted
- Definitions
  - Persistent: >48 hours
  - Intractable: > 1month
- Frequency reduces over time in adults
  - One study demonstrated 1-9% of intractable/persistent in advanced cancer patients; another 3.9-4.8%
  - More than ¼ of esophageal carcinoma patients with one attack lasting 48 hours
  - Up to 20% of patients with Parkinson's disease
- Guinness Book of World Records: longest period of consecutive hiccups 69 years and 9 months

# Pathophysiology

- Neuromodulators: dopamine and GABA
- Afferent: Vagus, phrenic, and sympathetic nerves
- Efferent: Phrenic nerve
  - Unilateral activation of diaphragm via phrenic nerve (L>R 80%)



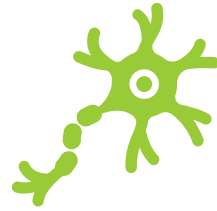
# Etiology

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## Central

Mass  
Stroke



## Peripheral

Gastrointestinal  
Thoracic  
ENT



## Other

Toxic-metabolic  
Pharmacologic  
Surgical  
Psychosomatic



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# Treatment

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FIRST STEP= EVALUATE FOR POTENTIAL REVERSIBLE  
ETIOLOGY



# Treatment

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"The amount of knowledge on any subject such as this can be considered as being in inverse proportion to the number of different treatments suggested and tried for it" - C.W. Mayo 1932



# Treatment

## *Non-pharmacologic*



### Nasopharyngeal stimulation

- Intra-nasal application of vinegar
- Inhalation of smelling salts
- Oropharyngeal stimulation



### Vagal stimulation

- Cold compress
- Carotid massage
- Induced fright
- Induced vomiting



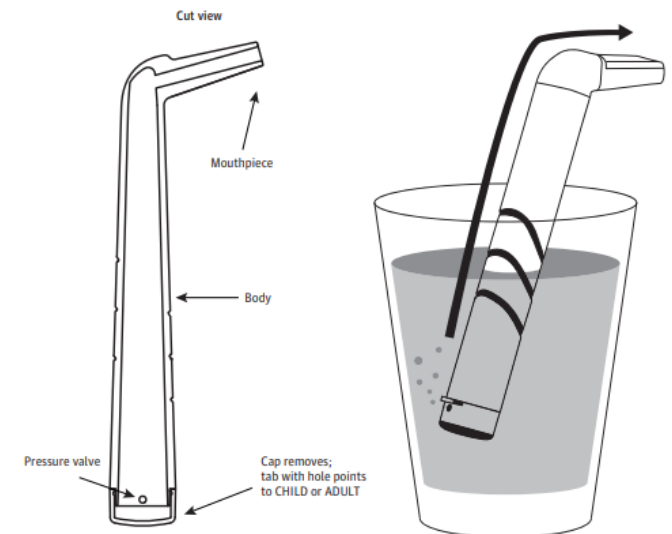
### Respiratory maneuvers

- Breath hold
- Re-breathing (induced hypercapnea)
- Valsalva maneuvers
- CPAP-respiration

# Brief guide to different non pharmacologic approaches

- **Supra-supramaximal inspiration (SSMI)**
  - Case series demonstrated 84% success among 19 patients
  - Technique
    1. Patient exhales completely
    2. Inhales a deep breath
    3. Waits 10 seconds and without exhaling
    4. Inhales a little more
    5. Waits another five seconds, aims to breathe in a little more again before finally exhaling.
- **Forced Inspiratory Suction and Swallow Tool (FISST) aka "HiccAway"**
  - Prospective Trial: predominantly looked at transient hiccups
  - Stopped hiccups in 92% of cases and rated favorably to home remedies

Figure. Forced Inspiratory Suction and Swallow Tool





# Treatment

## *Pharmacologic- Empiric*

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- First line
  - Proton Pump Inhibitor
  - And/or Metoclopramide (5-10 mg TID-QID)
- Second line
  - Baclofen (5-10 mg TID); pending renal function
  - Gabapentin (100-400 mg TID)
- Third line
  - Chlorpromazine 25-50 mg TID-QID

# Hiccup based Evidence

## Baclofen vs Placebo

- 2014 double blind RCT (Zhang et al.) of 30 **stroke** patients showed statistically significant improvement of hiccups with only one episode of drowsiness as negative outcome

## Metoclopramide vs Placebo

- 2014 double-blind RCT (Wang et al.) of 36 patients with cancer and cerebrovascular disease showed statistically significant improvement of hiccups. Fatigue (almost half!), mood changes, and dizziness were side effects noted in treatment arm.

## Chlorpromazine Case Series

- 1955 Case series of 50 patients which in 46 patients hiccups ceased. Led to FDA approval



# Treatment

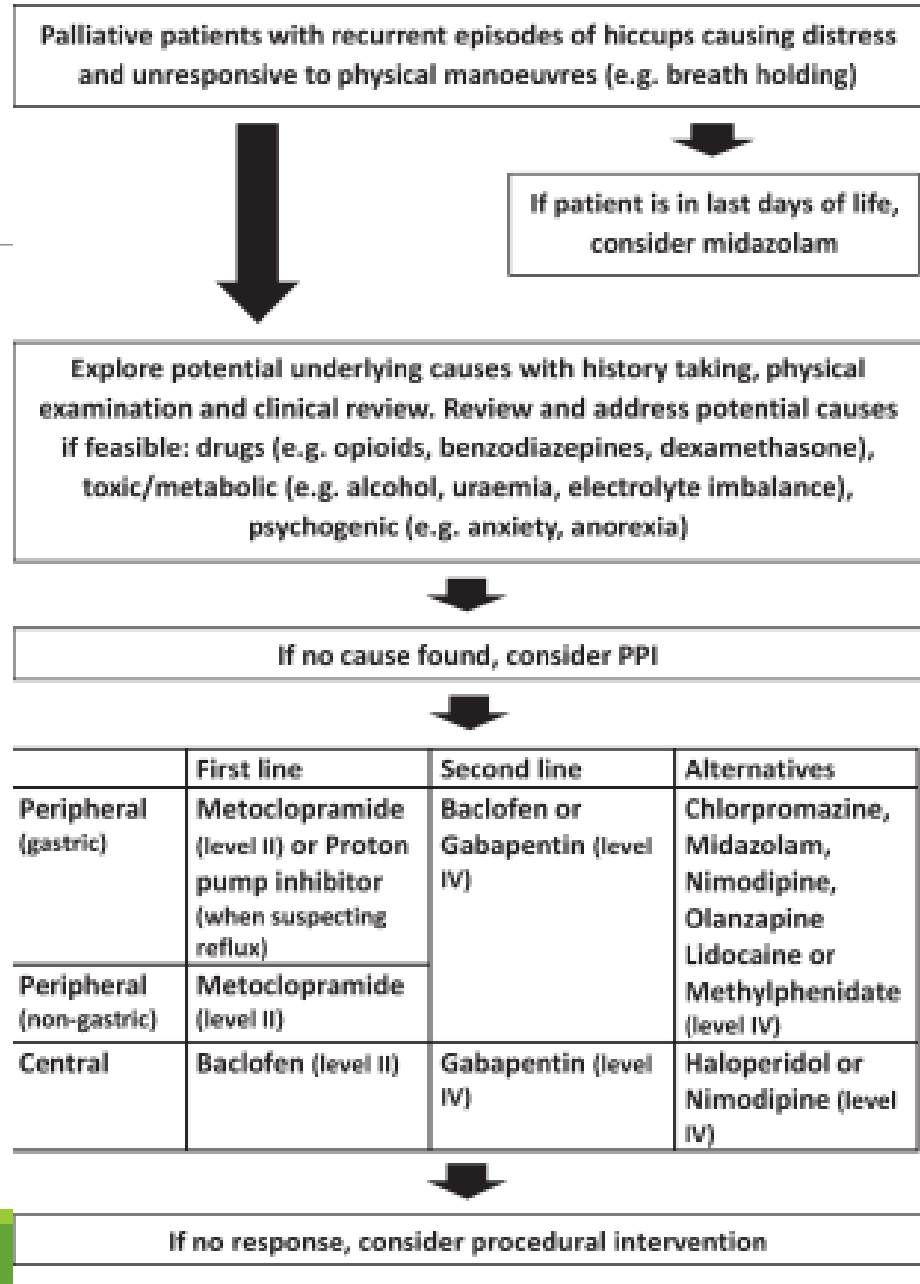
## *Pharmacology-other*

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- Defoaming agents: Simethicone
- Peppermint: relaxes lower esophageal sphincter; opposite effect of prokinetic
- Anticonvulsants: Valproic acid, carbamazepine, phenytoin
- Calcium Channel blockers: nifedipine, nimodipine
- Steroid rotation: Dexamethasone-> methylprednisone or prednisolone

# Hiccup Summary

- Transient hiccups are common, however intractable hiccups = significant emotional and physical distress
- Treatment should target underlying etiology
  - If initial treatment is not successful in 3 days should be modified
- Most studies observational with few RCTs supporting treatment





## Case 2

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53 y.o. married female with Stage IV ER+/PR+, Her2 negative breast cancer with osseous metastasis currently on palbociclib (Ibrance) and letrozole. She was diagnosed in 2019 and has been quite stable on this regimen since then (starting cycle 94). Her oncologist shared in the referral that she likely has a prognosis of years. She is a self-referral as she has heard from her friends with breast cancer all about how wonderful Palliative care can be. She has a few symptoms such as cough, fatigue, hemorrhoids.

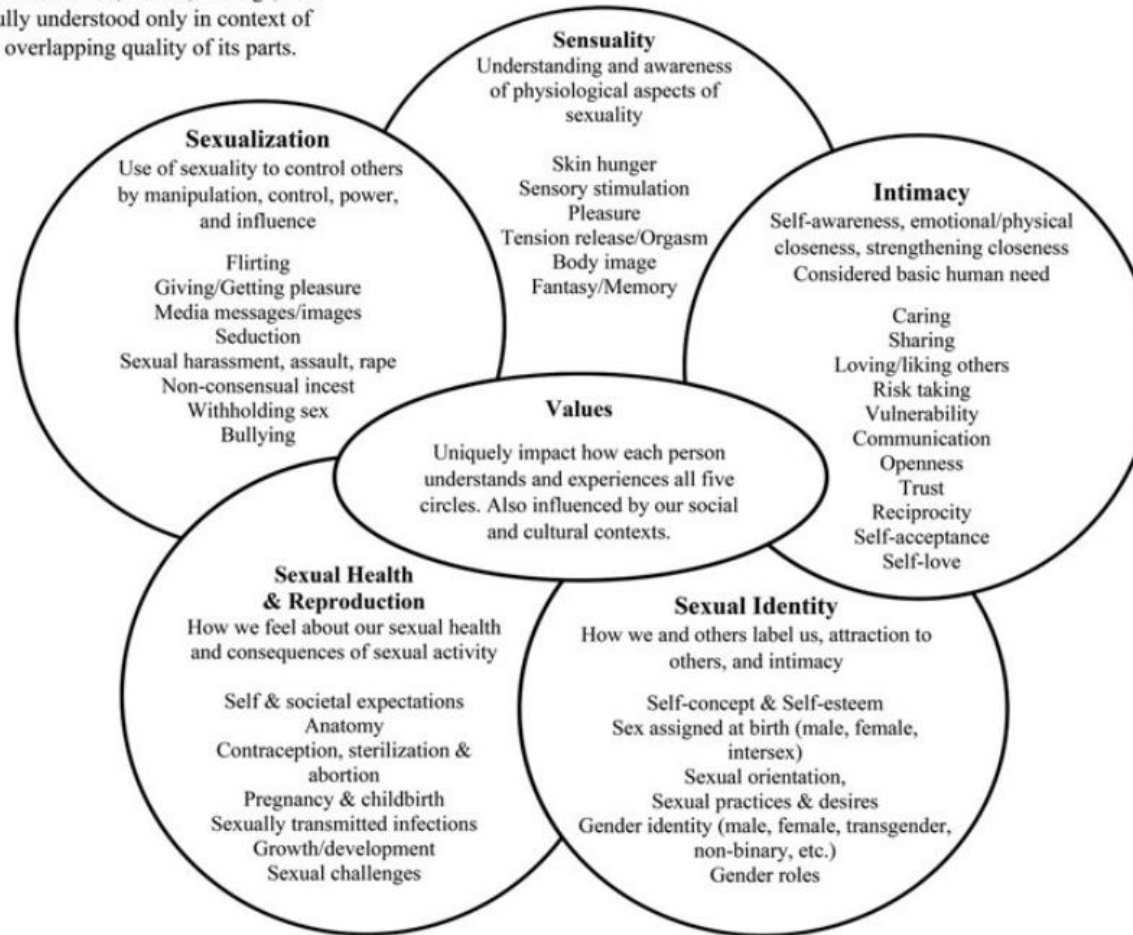
# Sexual Health

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- ❑ 60% of men & 28% of women with cancer reported that sexual side effects of treatment were discussed compared to 88% provider report
- ❑ 90% of women who are breast and gynecological cancer survivors report sexual dysfunction
- ❑ 80% of female survivors of ALL cancer report sexual dysfunction
  - ❑ Most Common complaints: dyspareunia, vaginal dryness, & low libido

### Circles of Sexuality\*

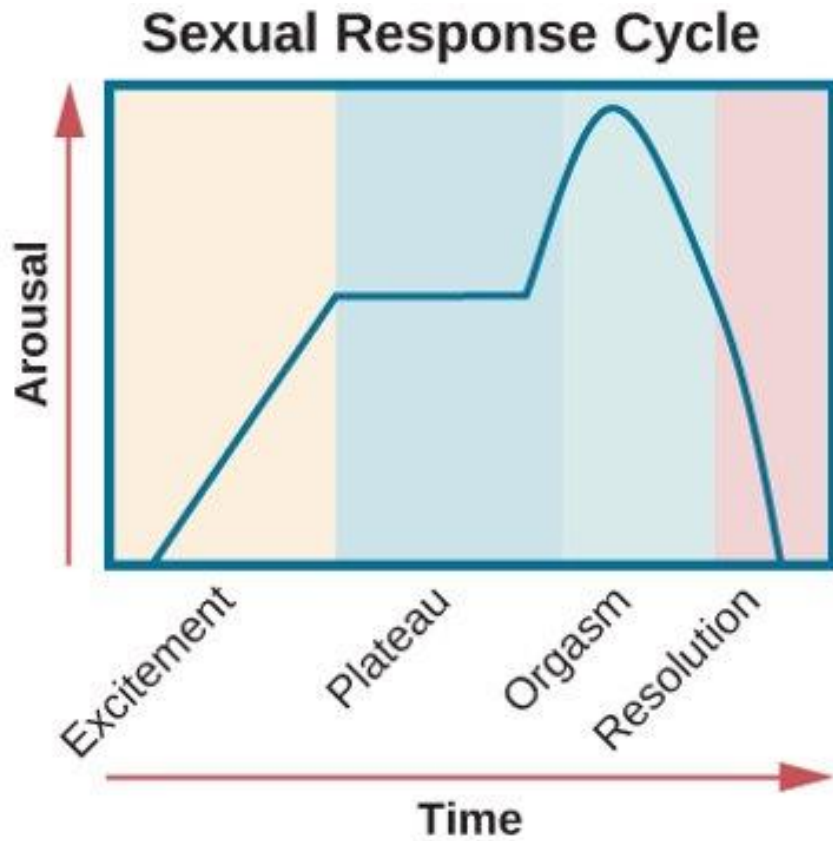
Sexuality includes attitudes, values, feelings, and experiences. Fully understood only in context of interacting and overlapping quality of its parts.



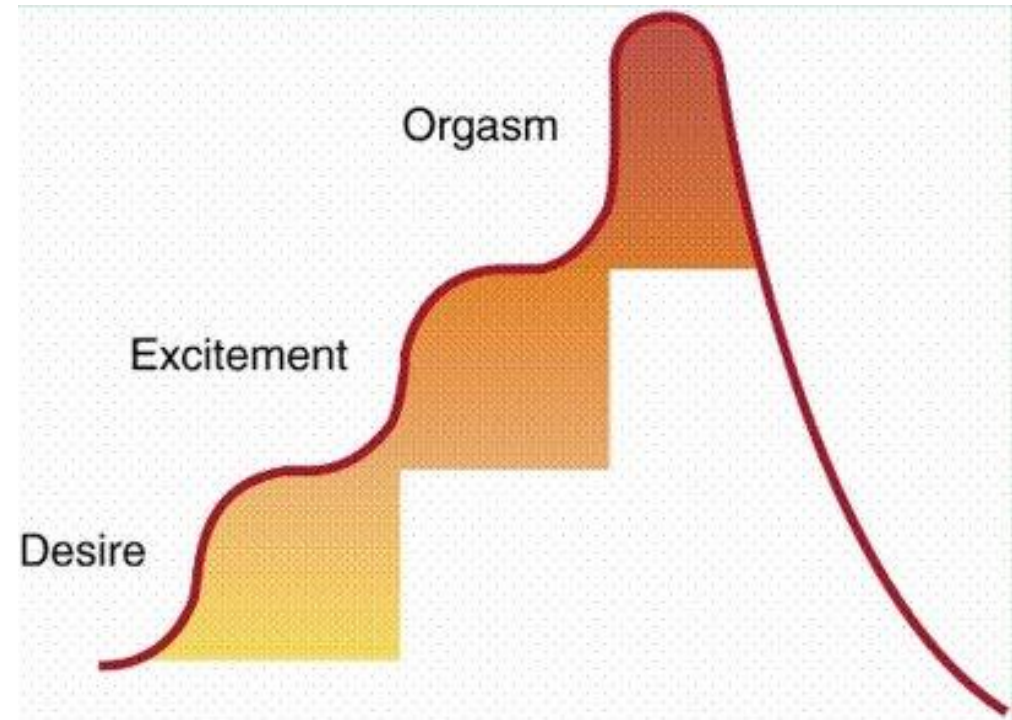
\*Model originally introduced by Dailey, 1981.<sup>14</sup> This figure is an adaptation of original model with inspiration from the following adaptations: Advocates for Youth, 2007<sup>18</sup>; Green, 2014<sup>19</sup>; Wilson, 2014.<sup>20</sup>

**FIG. 1.** Circles of sexuality model.

# Sexual Response Models & Physiology

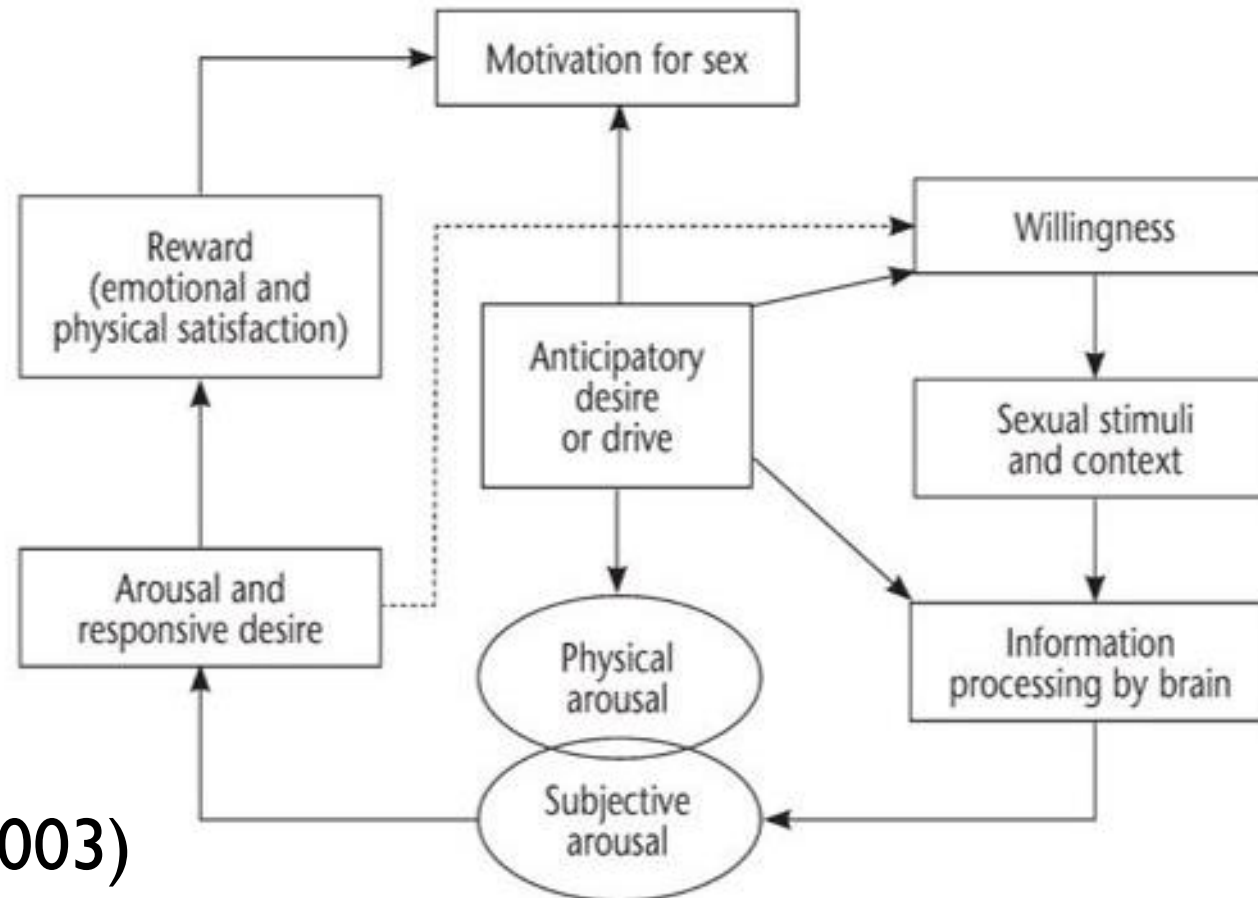


- Masters & Johnson (1966)

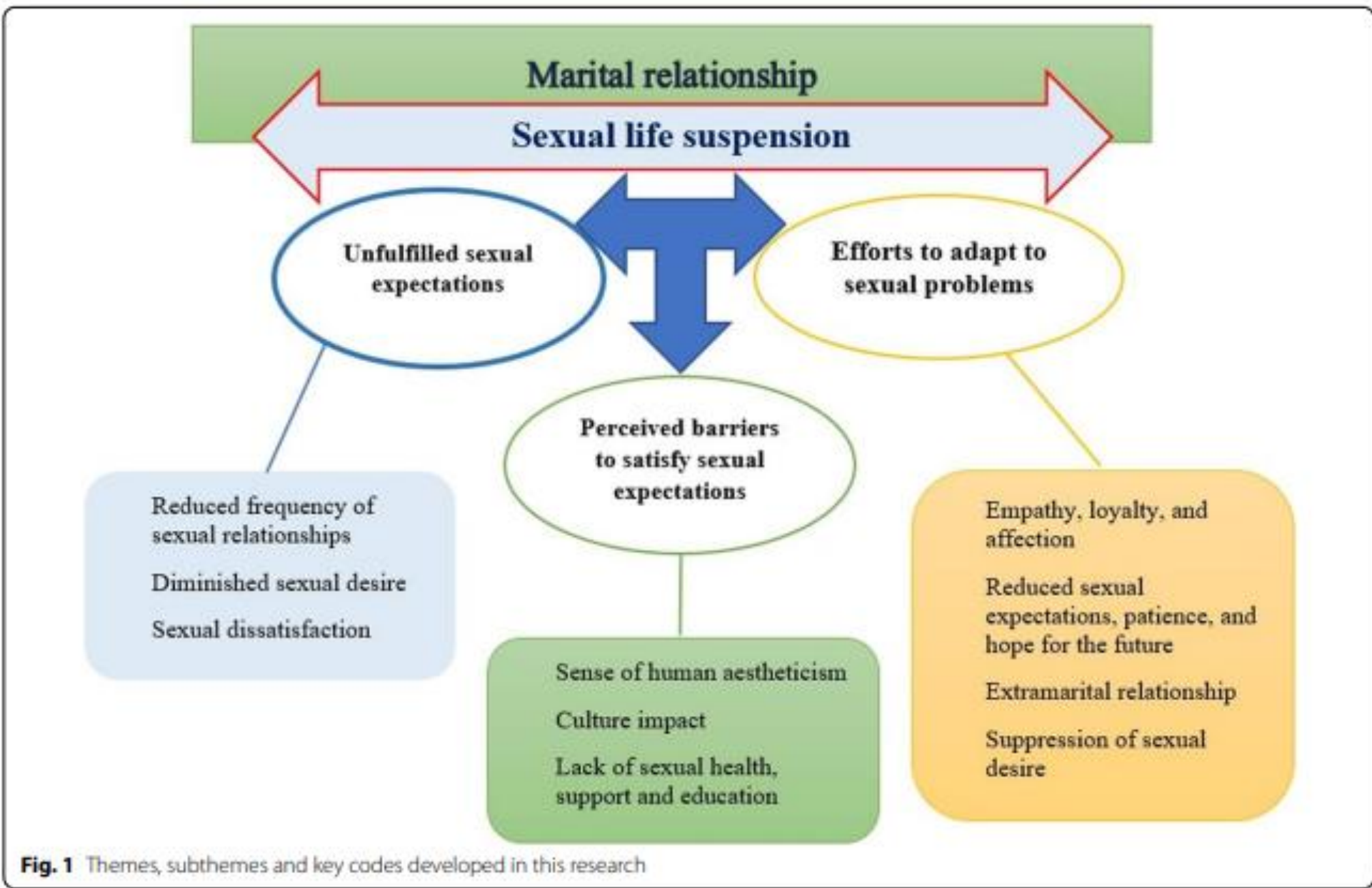


- Kaplan Modification (1979)

# Newer Sexual Response Model



- Basson, et al (2003)



Medication	Desire Disorder	Arousal Disorder	Orgasm Disorder
Amphetamines			X
Anticholinergics		X	
Antihistamines		X	
Anti-lipids	X		
Beta Blockers	X		
Clonidine	X	X	
Spironolactone	X		
Hormonal Contraceptives	X	X	
Tamoxifen	X	X	
Narcotics			X
SSRI	X	X	X

# Sexual Dysfunction & Drugs



# Genitourinary Syndrome of Menopause

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- ❖ Due to a decrease in estrogen and other sex steroids leading to changes to the labia majora/minora, clitoris, vestibule/introitus, vagina, urethra and bladder.
- ❖ Genital symptoms of dryness, burning, and irritation
- ❖ Sexual symptoms of lack of lubrication, discomfort or pain, and impaired function
- ❖ Urinary symptoms: urgency, dysuria and recurrent UTI



# Interventions

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- Vaginal Moisturizers/lubricants
- Vaginal Laser (i.e. Mona Lisa Touch)
- Referral to a women's sexual health clinic
- Belly Dance/Mat Pilates aimed at improving body image
- Mindfulness Based Interventions

Patient reported improvement in sexual health outcomes following care in a sexual health clinic for women with cancer

Rash Et al 2023

**Table 3** WISH Clinic patient-reported adherence and helpfulness of recommended therapies

	Menopause status (no. %)		Cancer type (no. %)		
	Premenopausal	Postmenopausal	Breast	Gyn	Other
<b>Pelvic floor physical therapy</b>					
Recommended	17 (50)	45 (58.4)	34 (55.7)	19 (54.3)	9 (56.2)
Patient-reported adherence	*10 (58.8)	*36 (83.7)	26 (78.8)	13 (72.2)	7 (77.8)
<b>Patient-reported helpfulness</b>					
Not at all/a little	5 (35.7)	12 (29.2)	9 (30)	7 (41.2)	1 (12.5)
Somewhat/very/extremely	9 (64.3)	29 (70.8)	21 (69.9)	10 (58.8)	7 (87.5)
<b>Sex therapy</b>					
Recommended	7 (21.2)	10 (13.2)	10 (16.4)	6 (18.2)	2 (12.5)
Patient reported adherence	3 (42.9)	6 (75)	6 (60)	3 (60)	1 (100)
<b>Patient-reported helpfulness</b>					
Not at all/a little	0 (0)	3 (42.9)	3 (42.9)	0 (0)	0 (0)
Somewhat/very/extremely	2 (100)	4 (57.2)	4 (57.2)	3 (100)	1 (100)
<b>Vaginal dilator/vibrating wand</b>					
Recommended	24 (70.6)	63 (81.8)	44 (72.1)	30 (85.7)	13 (81.2)
Patient-reported use	22 (91.7)	54 (87.1)	37 (86)	27 (90)	12 (92.3)
<b>Patient-reported helpfulness</b>					
Not at all/a little	9 (37.5)	14 (23.8)	10 (23.8)	8 (28.6)	5 (38.5)
Somewhat/very/extremely	15 (62.5)	45 (76.2)	32 (76.2)	20 (71.4)	8 (61.6)
<b>Moisturizer/lubricant</b>					
Recommended	32 (97)	73 (94.8)	58 (95.1)	32 (94.1)	16 (100)
Patient-reported use	32 (100)	72 (98.6)	58 (100)	31 (96.9)	16 (100)
<b>Patient-reported helpfulness</b>					
Not at all/a little	7 (21.9)	8 (11.1)	8 (13.8)	4 (12.9)	3 (18.8)
Somewhat/very/extremely	25 (78.2)	64 (88.8)	50 (86.2)	27 (87.1)	13 (81.2)

\*Kruskal-Wallis chi-squared = 4.1513, *df* = 1, *p*-value = .04

# Having the Conversation

## Permission

- Invites patient to enter into a discussion about sexual health
- "I'd like to review how you are doing as it relates to both sexuality and intimacy. Would that be okay?"
- "Are you (and your partner) having problems being intimate?"

## Limited Information

- Normalizes that issues related to sexual health are common
- "Some women complain that sex and intimacy are different now. In fact, it is pretty common. How has your experience been?"
- "A common complaint is pain during intercourse. Is this something that is happening with you?"

## Specific Suggestions

- Offer advice that can be actionable and easy to incorporate if possible
- "If you have some trouble with vaginal dryness, it may help to use a lubricant before and during sex."

## Intensive Therapy

- If one is not comfortable with issues brought up or does not know what to advise, offer expert consultation locally (if possible) or refer to educational resources (Table 4)
- "It sounds like you might benefit from seeing an expert in sexual health. Can I suggest a referral?"

# Challenge

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Ask a patient next week, how they feel about discussing sexuality.



## Summary

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- ❑ Don't skip this important part of health history
- ❑ Open the conversation
- ❑ Moisturizers are always safe to recommend if dryness/pain
- ❑ Refer – women's health clinic, psychology, pelvic floor physical therapy, sex therapists

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