Mast Cell Activation Disorders On the Rise

By Mark L. Fuerst
Reviewed By Miriam K. Anand, MD, FAAAAI, FACAAI, Clinical Associate Professor, Arizona College of Osteopathic Medicine, Midwestern University; President, Allergy Associates & Asthma, Tempe,

Mast Cell Disorders in Ehlers–Danlos Syndrome
Seneviratne SL, Maitland A, Afrin L. 2017. Mast cell disorders in Ehlers–Danlos syndrome. Am J Med Genet Part C Semin Med Genet 9999C:1–11.

Well known for their role in allergic disorders, mast cells (MCs) play a key role in homeostatic mechanisms and surveillance, recognizing and responding to different pathogens, and tissue injury, with an array of chemical mediators. After being recruited to connective tissues, resident MCs progenitors undergo further differentiation, under the influence of signals from surrounding microenvironment. It is the differential tissue homing and local maturation factors which result in a diverse population of resident MC phenotypes. An abundance of MC reside in connective tissue that borders with the external world (the skin as well as gastrointestinal, respiratory, and urogenital tracts). Situated near nerve fibers, lymphatics, and blood vessels, as well as coupled with their ability to secrete potent mediators, MCs can modulate the function of local and distant structures (e.g., other immune cell populations, fibroblasts, angiogenesis), and MC dysregulation has been implicated in immediate and delayed hypersensitivity syndromes, neuropathies, and connective tissue disorders (CTDs). This report reviews basic biology of mast cells and mast cell activation as well as recent research efforts, which implicate a role of MC dysregulation beyond atopic disorders and in a cluster of Ehlers–Danlos Syndromes, non-IGE mediated hypersensitivity disorders, and dysautonomia

Signs and symptoms of mast cell activation may include nausea, abdominal cramping, diarrhea, mild pruritus, anaphylaxis and life-threatening hypotension, tachycardia or unexplained arrhythmias, and neurologic or psychiatric symptoms.

- Disorders attributed primarily to mast cell activation need clear diagnostic criteria to prevent under- and over-diagnoses.
-

Increasing numbers of patients and their physicians are learning that they have mast cell activation (MCA) that is not associated with mastocytosis or with a defined allergic or inflammatory reaction.

Three types of MCA syndromes (MCAS) have been defined, including primary MCAS, secondary MCAS, and idiopathic MCAS. The criteria to define MCAS include:

- Typical clinical symptoms
- Substantial transient increase in serum total tryptase level or an increase in other mast cell-derived mediators, such as histamine or prostaglandin D_2 (or their urinary metabolites)
- Response of clinical symptoms to agents that attenuate mast cell mediators.[1]

Signs and symptoms of MCA are protean and may include nausea, abdominal cramping and diarrhea, mild pruritus, anaphylaxis and life-threatening hypotension, tachycardia or unexplained arrhythmias, and

neurologic/psychiatric symptoms.[1,2] Symptoms may be both acute and chronic. An underlying allergy is found in many cases. Other underlying disorders, such as autoimmune disorders, chronic urticaria, or systemic mastocytosis (SM), are less common. However, in patients mounting severe anaphylactic reactions to hymenoptera venom, both in the absence or presence of specific immunoglobulin E, an underlying SM may be detected.[3] Even osteoporosis[4] and unexplained gastrointestinal (GI) symptoms[5] have been reported.

A number of clinical symptoms may mimic systemic MCA, including acute urticaria, flushing, pruritus, headache, abdominal cramping, diarrhea, vomiting, respiratory symptoms, and hypotension. Systemic MCA is more likely when signs or symptoms are present in multiple organ systems.

Clinical features may also be induced by mast cell-derived mediators, such as histamine, leukotriene C_4, or prostaglandin D_2, that are also produced by basophils. Other mediators, such as tryptase, are produced in abundance by mast cells.

MCA is best documented by increases in tryptase level, and even a small increase in serum total tryptase over baseline levels is considered proof of systemic MCA. Serum tryptase during an anaphylactic event may peak 15 to 60 minutes after symptom onset. The severity of anaphylaxis will, in part, determine how long serum tryptase levels remain elevated. Therefore, the timing of sample collection needs to be factored into interpretation of tryptase levels.[6]

In addition, a baseline serum tryptase level should be measured at least 24 hours after complete resolution of all signs and symptoms. If the patient shows an elevated baseline level of tryptase, this suggests SM.[1]

When typical clinical symptoms of MCA respond to medications such as histamine blockers, this is usually interpreted as highly suggestive evidence of MCA. Indirect evidence of MCA may include a complete response to glucocorticosteroids, cromolyn, cyclooxygenase inhibitors, leukotriene receptor blockers, 5-lipoxygenase inhibitors, or antagonists of certain cytokines.[1]

Patients who develop severe anaphylactic reactions may have both a primary mast cell disorder and a coexisting allergy. Similarly, a patient may also develop idiopathic and secondary MCA episodes at different times. Patients with primary MCAS can be further divided into those with true mastocytosis (by World Health Organization criteria) and those fulfilling only 1 or 2 minor SM criteria.

The MCA diagnosis is sometimes applied to patients with vague yet suggestive symptoms. These patients may suffer from an unrelated, overlooked disease. Applying solid diagnostic criteria when considering the MCA diagnosis helps avoid wasting time and money. Certain cardiovascular disorders, endocrine disorders, neoplasms, GI diseases, primary skin diseases, infectious diseases, and neurologic or psychiatric disorders are among the numerous conditions sometimes confused with MCA. Diagnostic clarification may be provided by determinations of serum tryptase levels, as well as levels of other available mast cell biomarkers. If histamine or histamine metabolite levels increase during an attack, but tryptase levels remain consistently normal, the condition may be related to basophil activation or a histamine-secreting tumor.

Physicians are often unsure about the diagnosis of SM or confuse SM with other medical disorders. In other cases, MCAS are diagnosed without proper examination and documentation. Diagnostic criteria should help establish the correct diagnoses and avoid misdiagnoses or overinterpretation of findings and symptoms.

Published: 07/10/2014

References: http://www.medpagetoday.com/resource-center/anaphylaxis-advances/mast-cells/a/46719

TO ALL NEW PATIENTS UNDERGOING EVALUATION FOR MAST CELL ACTIVATION DISORDER

Welcome!

The following is the policy for an appointment to undergo an evaluation for Mast Cell Activation Disorder/ Syndrome with Dr. Anne Maitland.

1. All patients must have a written referral letter from their local physician. This letter and medical records should be emailed to operations@caac-nyc.com.

If you have additional reports, please send these records :

- Recent office visit notes
- Blood test results
- Hospital and emergency room visits
- Biopsy reports
- Serum tryptase level, Serum histamine level
- A complete blood count with differential
- 24 hour urine tests for N-methylhistamine and 11-betaprostaglandin F2

2.Once your information is received and your questionnaire is reviewed, a representative from the office of Dr. Maitland will be in contact with you regarding when an appointment can be scheduled. **The fee for review of records and questionnaire is $325.00, which is collected through the payment of the practice administrative fee (Annually $900 or semi-annually $450). The CPT code is 99358 for you to submit to your insurance.**

*****Please note that no medical advice will be given nor will there be direct communication with patients who are not established with this practice*****

3. It is the patient's responsibility to verify appropriate insurance coverage and to obtain referrals, if necessary. The staff members of Comprehensive Allergy & Asthma Care are not able to call insurance companies to verify insurance coverage, for neither the office visit or any laboratory testing. The office also does not have the resources to arrange referrals.

4. All patients should be medically stable to travel to the appointment. No emergency appointments can be scheduled.

5. The patient must have a local health care provider - doctor, physician assistant, nurse practitioner- who will follow up when the patient returns home, to provide ongoing management and care.

6. The initial consultation visit typically is 60 minutes and the follow up appointment is approximately 30-45 minutes. The intention of of the follow up is to discuss any further test results, treatment recommendations, and to coordinate care with the health care provider who will be responsible for the patients' ongoing treatment and care.

7. Routine medications (including antihistamines) should **NOT** be stopped prior to the appointment.

Patient's Last Name _____ First Name_____ Middle Initial _____

SSN _____ Date of Birth _ Age _____ Sex F ☐ M ☐

Address Apt.#_____ City _____ State___ Zip _____ County_____

Pharmacy Name and address_ __

Name & Address of Primary Care (Family) Physician or Pediatrician _____

Name & Address of Referring Physician(if different)_____

Marital Status: ☐ Single ☐ Married ☐ Divorced ☐ Widowed ☐ Separated Student Status: ☐ PT ☐ FT

Phone _____ Day Phone_____ Cell Phone

E-mail Address_____

Employer: _____ Employer Address: _____

What is or was your occupation? -_____☐ DOB

Name of Spouse/Parent/Legal Guardian_____ SSN _____

Primary Medical Insurance

Policy Holder Name_____ Policy SSN_____ DOB_____

Ins.Name_____ Policy#_____ Patient#_____

Group Name _____ Group Number _____

Ins. Co. Address _____Ins. Co. Phone Number _____ Effective Date _____

Co-pay _____ Deductible _____

Secondary Medical Insurance

Policy Holder Name_____ Policy Holder SSN _____ Policy Holder DOB _____

Plan Name _____ Policy Holder# _____ Patient's Policy #_____

Group Name Ins. Co. Group Number (if applicable) _____

Address_____ Ins. Co. Phone Number

Co-Pay Amount _____ Deductible

Is this visit covered by Workers' Comp? _____

Emergency Contact: Phone#: __ _____

I will pay by: Cash ☐ Check ☐ Charge ☐

I certify this information is true and correct to the best of my knowledge. I will notify you of any changes in the above information. I authorize the release of any medical information necessary to process an insurance claim and request that payment of benefits be made to the physician unless my account has been paid in full

I **have received Comprehensive Allergy** & **Asthma Care's notice of privacy practice,**

*Responsible Party Signature*_____ Date

Patient Name:_____ DOB:_____ Date:

New Patient Intake Questionnaire

Information provided by this questionnaire will be of major assistance to the doctor in helping you. **Please take the time to complete this questionnaire before your appointment**.

Patient Name: _____
Date of Birth: _____
First and last name and tel. # of Primary Care Physician: _____

First and last name and tel # of Referring Physician: _____
Pharmacy Name and Tel#_____

What do you hope to achieve in your visit with us today?

What three problems bother you the most?

1. _____

2. _____

3. _____

When was the last time you felt well?_____

Did something trigger your change in health? _____

What makes you feel worse? _____

What makes you feel better? _____

Office Use Only

Height: _____

Weight: _____

BP: ___/

Pulse: _____

Name_____

Signs & Symptoms worrisome for a mast cell activation disorder (check circle next to sign/symptom that you have experienced)		
Neuropsychiatric (screen for neuropathies and mood disorders)	○ Headache disorders	
	○ Mood disorders (anxiety and/ or depression?	
	○ Pain syndrome	
	○ Tingling /Paresthesias /Weakness	
	○ Difficulty with concentration?	
	○ Difficulty with memory?	
	○ Difficulty with balance?	
Eyes/ Ears/ Nose / Sinuses/Throat	○ Watery runny nose, Sneezing fits?	
	○ Nasal obstruction?	
	○ Itchy nose?	
	○ feeling of being unable to breathe through your nose??	
	○ mucus in the back of your throat / "post nasal drip"?	
	○ fullness /pain in ears ?	
	○ Watery, Itchy eyes?	
Lungs (Asthma Screen)	○ Have you had any trouble breathing?	
	○ Feeling short of breath?	
	○ Episodes of coughing?	
	○ Episodes of wheezing?	
	○ Have you ever been given an inhaler by a doctor to help your breathing?	
Gastro-intestinal tract (Irritable bowel syndrome screen)	○ Have discomfort or pain anywhere in your abdomen?	
	○ Do you have more frequent bowel movements or episode of diarrhea and/or constipation?	
	○ Do you experience bloating or abdominal distension, after eating?	
	○ Do you have to rush to the bathroom because of a sudden urge to have a bowel movement?	
Uro-genital tract (screen for intestitial cystitis)	○ Do you have pain in your bladder or pelvis (vagina, lower abdomen, urethra, perineum)?	
	○ Do you have pain or urge to urinate?	
	○ Do you get out of bed to urinate?	
Screening for Urogenital problems in girls/women	○ For women: do you experience dyspareunia (pain during or after sexual intercourse), recurrent bouts of vaginitis or cope with heavy/sporadic vaginal bleeding?	

Name_____

Skin	○ Do you experience urticaria (hives)?	
	○ Do you experience angioedema (swelling of the tongue, lips, hands, feet)?	
	○ Do you experience pruritis (itch without rash)?	
	○ Do you experience or flushing (redness, heat sensation of the skin)?	
Cardiovascular	○ Do you experience palpitations or extra heartbeats?	
	○ Do you experience episodes of low blood pressure?	
	○ Do you experience episodes of lightheadedness or nearly fainting?	
Musculo-skeletal system, Joints	○ Do you experience increase joint pain or swelling? ○ Do you experience increase muscle cramps? ○ Do you experience muscle weakness?	
Anaphylaxis	○ Have you ever been treated for anaphylaxis?	
	○ Have you ever been prescribed an epinephrine auto-injector?	

Name_____

Next set of questions are design to figure out why your mast cells are misbehaving (mast cell activation triggers)

Allergy History

Have you ever been diagnosed with asthma, allergic rhinitis (hay fever "allergies") or eczema?	☐ Yes	☐ No
When you were a young child, did you have allergies, asthma, or eczema?	☐ Yes	☐ No
Have you ever been on allergy immunotherapy/shots?	☐ Yes	☐ No
Have you ever had a reaction to food? Which: Nuts / Shellfish / Fresh Fruit / Soy / Wheat	☐ Yes	☐ No
Have you ever had a reaction to latex?	☐ Yes	☐ No
Have you ever had a reaction to insect sting, including large local skin reactions?	☐ Yes	☐ No
Have you ever been allergy tested, skin or blood? Allergic to pollen/dust/mold/animals	☐ Yes	☑ No

Screening for breathing difficulties: Please Answer the following Questions:

Have you ever had trouble with your breathing? (continuously or repeatedly)	**Yes** ○ **No** ○
Have you had an attack/episode of shortness of breath at any time in the last 12 months?	**Yes** ◉ **No** ○
Have you had wheezing or whistling in your chest at any time in the last 12 months?	**Yes** ○ **No** ○
Have you been awakened during the night by an attack of any of the following symptoms in the last 12 months: (a) cough? (b) chest tightness?	**Yes** ○ **No** ○
Have you been given an inhaler by a doctor to help your breathing?	**Yes** ○ **No** ○

When was the testing _____ , (circle blood tests or skin testing) and what were you allergic to?
foods_____
airborne_____

Any Medication Allergies or Adverse Reactions? Do you tolerate anesthesia or pain medications?

Medication	Reaction: (Rash? Headache? Diarrhea? Anaphylaxis?

Name_____

Triggers: Exposures that make your symptoms worse (Check all that apply)

What happens? Place a "**B**" breathing troubles; "**G**", Gastrointestinal upset; "**H**" Headache; "**R**", Rash

☐ House Cleaning ☐ Making the bed ☐ Lawn mowing ☐ Raking Leaves ☐ Moldy or damp areas ☐ Clear weather ☐ Colds / flu-like symptoms ☐ Smoke ☐ Perfumes ☐ Hair sprays ☐ Soap powders ☐ Laughing or crying ☐ Exercise	☐ Being outdoors ☐ Being indoors ☐ Cool air ☐ Warm air ☐ Cat dander ☐ Dog dander ☐ Other animals _____ ☐ Anesthesia ☐ Aspirin	☐ Ibuprofen ☐ (Advil/Motrin) ☐ Naprosyn(Aleve) ☐ Lying down ☐ Infections ☐ Codeine ☐ Opiods	☐ Getting up in the morning ☐ for women: menstrual period

Adverse Reactions to Foods?	☐ Monosodium glutamate (MSG) ☐ Aspartame (Nutrasweet) ☐ Caffeine ☐ Bananas ☐ Garlic ☐ Onion ☐ Cheese ☐ Wheat ☐ Cow's Milk ☐ Peanuts ☐ Tree Nuts ☐ Fish ☐ Shellfish ☐ Fresh Fruit _which ones?_____ (apples, peaches, cherries, melons, strawberries) ☐ left-over food - reheated ☐ Citrus Foods ☐ Chocolate ☐ Alcohol ☐ Red Wine ☐ Sulfite Containing Foods (wine, dried fruit, salad bars) ☐ Preservatives (ex. sodium benzoate) ☐ Other: _____ _____

Name_____

Screening questionnaire for an immune deficiency syndrome/disorder:

Signs and symptoms of immune defiency (lacking components of your immune system)	Yes or No
Have you or your child been treated for 4 or more new ear infections within 1 year?	
Have you or your child been treated for 2 or more serious sinus infections within 1 year?	
Have you or your child received 2 or more months on antibiotics with little effect?	
Have you or your child been treated for Two or more pneumonias within 1 year?	
Did you or your child have a history of failure of an infant to gain weight or grow normally?	
Have you or your child been treated for recurrent, deep skin or organ abscesses?	
Have you or your child been treated for persistent or recurrent thrush in mouth or fungal infection on skin	
Have you or your child needed for intravenous antibiotics to clear infections?	
Have you or your child been treated for 2 or more deep-seated infections including septicemia (blood infection)?	
Have you ever been evaluated for recurrent fevers (fevers of unknown origin)?	
Has a family member been treated for recurrent or severe infections, diagnosed with primary immune deficiency disorder?	

Name_____

Have you ever been hospitalized overnight for reasons other than surgery?
If so, please list:

_____
_____
_____

Have your medications or supplements ever caused you unusual side effects or problems? ◯ Yes ◯ No
Describe: _____

Have you had prolonged or regular use of NSAIDS (Advil, Aleve, etc.), Motrin, Aspirin? ◯ Yes ◉ No

Have you had prolonged or regular use of Tylenol? ◉ Yes ◯ No

Have you had prolonged or regular use of Acid Blocking Drugs (Tagamet, Zantac, Prilosec, etc.) ◉ Yes ◯ No

Frequent antibiotics > 3 times/year ◯ Yes ◉ No

Long term antibiotics ◉ Yes ◯ No To treat what illness? _____

Use of steroids (prednisone, nasal allergy inhalers) in the past ◯ Yes ◯ No

Use of oral contraceptives ◯ Yes ◯ No

Sleep Evaluation:

Average number of hours you sleep per night: □>10 □8-10 □6-8 □< 6

Do you have trouble falling asleep? ☐ Yes ☐ No

Do you feel rested upon awakening? ☐ Yes ☐ No

Do you have problems with insomnia? ☐ Yes ☐ No

Do you snore? ☐ Yes ☐ No

Do you use sleeping aids? ○ Yes ○ No
Explain: _____

Name_____

Assessment of Joint Hypermobility/Flexibility

Have you been diagnosed with a connective tissue disorder? _____

If so, which disorder and who confirmed the diagnosis?_____

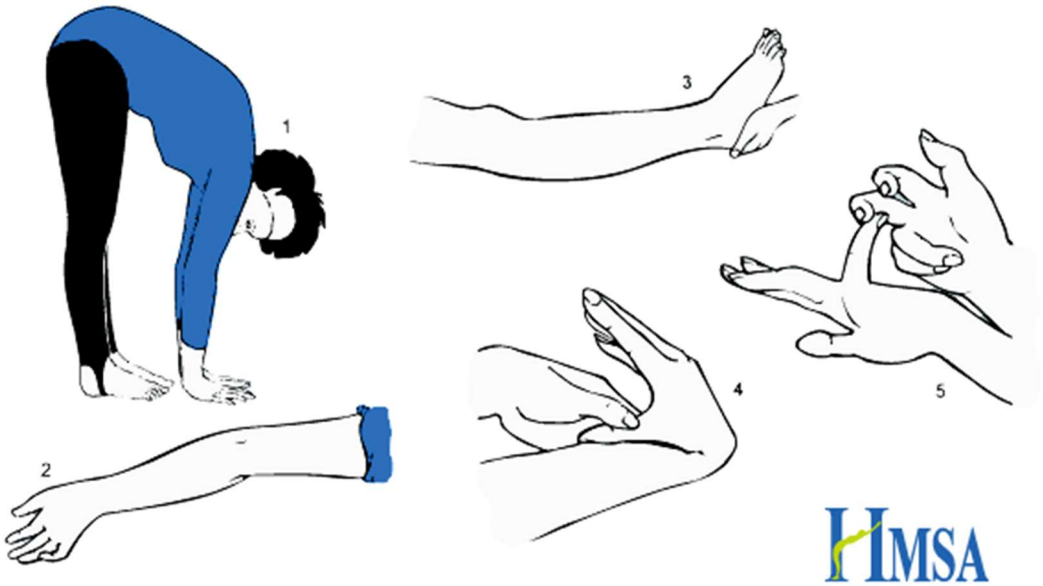
(1) Can you now(or could you ever) place your hands flat on the floor without bending your knees:☐Yes ☐No

(2) Can you now (or could you ever) bend your thumb to touch your forearm? ☐Yes ☐No

(3) As a child did you amuse family or friends by contorting (bending) your body into strange shapes or could you do splits? ☐Yes ☐No

(4) As a child or teenager, did your shoulder, hip or knee cap dislocate (slip out and pop back into place) on more than one occasion? ☐Yes ☐No

(5) Do you consider yourself double jointed? ☐Yes ☐No



HMSA

Name_____

Neuropathy Screening Questionnaire Initial Development and Validation of a Patient-Reported Symptom Survey for Polyneuropathy, RoiTreister*† et al, 2017	**Please place a check mark if a "yes" to the questions below:**
Are you legs and/or feet numb?	
Do you ever have any burning pain in your legs and/or feet?	
Are your feet too sensitive to touch?	
Do you get muscle cramps in your legs and/or feet?	
Do you ever have any prickling feelings in your legs or feet?	
Does it hurt when the bed covers touch your skin?	
When you get into the tub or shower, are you able to tell the hot water from the cold water?	
Have you ever had an open sore on your foot?	
Has your doctor ever told you or suspected that you have a neuropathy?	
Do you feel weak all over most of the time?	
Are your symptoms worse at night?	
Do you have vision eye difficulties (dry, sensitive to light, hard to focus)?	
Do your legs hurt when you walk?	
Are you able to sense your feet when you walk?	
Do you experience fast or strong heart beats?	
Do feel dizzy or faint when standing up?	
Does your stomach quickly full or feel bloated after meals?	
Do you experience episodes of nausea or vomiting?	
Have you experienced a changed pattern of sweating on body- too little or excessive?	
Do you have difficulty starting to urinate or have had accidents?	
Do have or experience blisters or sores inside mouth ?	
Do you have less hair growth on lower legs or feet?	

Surgeries

Check box if yes and provide date (year) of surgery

Adenoid Removal _____
□ Appendectomy _____
□ Hysterectomy +/- Ovaries _____
□ Gall Bladder _____
□ Hernia _____
□ Tonsillectomy _____
□ Dental Surgery _____
□ Joint Replacement –Knee/Hip _____
□ Orthopedic _____
□ Neurosurgery _____
□ Heart Surgery–Bypass Valve _____
□ Angioplasty or Stent _____
□ Pacemaker _____
□ Other _____

Medications (prescription, OTC)	**How Much**	**How Often**	**Helpful?**

Supplements	**How Much**	**How Often**	**Helpful?**

Name_____ – New Patient Intake

Environmental History

Do you live in:	☐ Single Family	☐ Apartment	☐ Condo
Carpeting in:	☐ Bedroom	☐ Playroom	
Do you have mold in:	☐ Basement	☐ Bathroom	
Pets?	☐ Cat	☐ Dog	Other _____
Do you smoke?	☐ Never	☐ Former	☐ Current
Air Conditioning in:	☐ Bedroom		
Fireplace in the home?	☐ yes ☐ no		
In your home or workplace, Any problems with…	☐ mice	☐ roaches	☐ beetles

	No	**Yes**, how much did/do you use…
Do you have a history of alcohol use?	☐	
Do you have a history of drug abuse?	☐	

ROLES/RELATIONSHIPS

Marital status:
☐ Single ☐ Married ☐ Divorced ☐ Gay/Lesbian ☐ Long Term Partnership ☐ Widow

Child's Name	**Age**	**Gender**

Who is Living in Household? Number: _____

Names:_____

Their employment/Occupations:_____
Resources for emotional support?
Check all that apply:
□Spouse □Family □Friends □Religious/Spiritual □Pets □Other: _____

☐ ☐ ☐ ☐ ☐ ☐

Name_____ – New Patient Intake

Review of Symptoms: Please check symptoms that you have experienced within the past 3 months.

General	☐ Cold Intolerance ☐ Low Body Temperature ☐ Low Blood Pressure ☐ Daytime Sleepiness ☐ Difficulty Falling Asleep ☐ Early Waking ☐ Fatigue ☐ Fever ☐ Flushing ☐ Heat Intolerance ☐ Night Waking ☐ Nightmares ☐ No Dream Recall
Eyes	☐ Itching ☐ Tearing ☐ Dry Eyes ☐ Lid Margin Redness ☐ Eye Crusting ☐ Eye Pain ☐ Vision problems (other than glasses) ☐ Macular Degeneration ☐ Vitreous Detachment ☐ Retinal Detachment
Ears/Nose/Throat	☐ Hoarseness ☐ Sore Throat ☐ Nasal Stuffiness ☐ Snoring ☐ Nose Bleeds ☐ Post Nasal Drip ☐ Sinus Fullness ☐ Sinus Infection ☐ Distorted Sense of Smell ☐ Distorted Taste ☐ Ear Fullness ☐ Ear Pain ☐ Ear Ringing/Buzzing ☐ Hearing Loss ☐ Hearing Problems ☐ Headache ☐ Migraine ☐ Sensitivity to Loud Noises
Heart	☐ Angina/chest pain ☐ Breathlessness ☐ Heart Murmur ☐ Irregular Pulse ☐ Palpitations ☐ Phlebitis ☐ Swollen Ankles/Feet ☐ Varicose Veins
Respiratory	☐ Cough-Productive ☐ Wheezing ☐ Winter Stuffiness ☐ Bronchitis ☐ Shortness of Breath

Name_____ – New Patient Intake

Gastrointestinal tract	☐ Bleeding Gums ☐ Bloating ☐ Blood in Stools ☐ Burping ☐ Canker Sores ☐ Cold Sores ☐ Constipation ☐ Cracking at Corner of Lips ☐ Cramps ☐ Dentures w/Poor Chewing ☐ Diarrhea ☐ Alternating Diarrhea and Constipation ☐ Difficulty Swallowing ☐ Dry Mouth ☐ Excess Flatulence/Gas ☐ Fissures ☐ Foods "Repeat" (Reflux) ☐ Gas ☐ Heartburn ☐ Hemorrhoids ☐ Indigestion ☐ Nausea ☐ Upper Abdominal Pain ☐ Vomiting ☐ Liver Disease/ ☐ Jaundice (Yellow Eyes or Skin) ☐ Abnormal Liver Function Tests ☐ Lower Abdominal Pain ☐ Mucus in Stools ☐ Periodontal Disease ☐ Sore Tongue ☐ Strong Stool Odor ☐ Undigested Food in Stool
Urinary Tract	☐ Bed Wetting ☐ Hesitancy (trouble getting started) ☐ Infection ☐ Kidney Disease ☐ Leaking/Incontinence ☐ Pain/Burning ☐ Prostate Infection ☐ Urgency
Musculoskeletal	☐ Back Muscle Spasm ☐ Calf Cramps ☐ Chest Tightness ☐ Foot Cramps ☐ Joint Deformity ☐ Joint Pain ☐ Joint Redness ☐ Joint Stiffness ☐ Muscle Pain ☐ Muscle Spasms ☐ Muscle Stiffness ☐ Muscle Weakness ☐ Neck Muscle Spasm ☐ Tendonitis ☐ Tension Headache ☐ TMJ Problems

Name_____ – New Patient Intake

Skin	☐ Rash ☐ Itch ☐ Hives/Welts ☐ Swelling ☐ Hair loss on head ☐ Hair loss on Lower extremities ☐ Excessive sweating
Endocrine	☐ sensitive to the cold ☐ sensitive to the heat ☐ feel the need to drink lots of water ☐ Can't Lose Weight ☐ Can't Maintain Healthy Weight ☐ Frequent Dieting ☐ Poor Appetite ☐ Salt Cravings ☐ Carbohydrate Craving (breads, pastas) ☐ Sweet Cravings (candy, cookies, cakes) ☐ Chocolate Cravings ☐ Caffeine Dependency ☐ women: abnormal menstrual period
Neurology/ Mood	☐ Anxiety ☐ Auditory Hallucinations ☐ Black-out ☐ Depression ***Difficulty:*** ☐ Concentrating ☐ With Balance ☐ With Thinking ☐ With Judgment ☐ With Speech ☐ With Memory ☐ Dizziness (Spinning) ☐ Fainting ☐ Fearfulness ☐ Irritability ☐ Light-headedness ☐ Numbness ☐ Other Phobias ☐ Panic Attacks ☐ Paranoia ☐ Seizures ☐ Suicidal Thoughts ☐ Tingling ☐ Tremor/Trembling ☐ Visual Hallucinations

Name_____ – New Patient Intake

Please check which family member may have been treated for the following conditions:

	Mother	Father	Daughte	Son	Brother	Sister	Maternal Grand-Mother	Maternal Grand-Father	Paternal Grand-Mother	Paternal Grand-Father	Aunt	Uncle
Food Allergy/ Intolerance	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Rhinitis	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Eczema	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Sinus Problems/Polyps	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Pneumonia	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Asthma	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Bronchitis	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Heartburn	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Irritable bowel Syndrome (IBS)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Inflammatory Bowel disease (IBD)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Headache disorder	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Hypertension	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Heart Disease	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Stroke	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Arthritis	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Thyroid Disorder	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Cancer Breast? Prostate? Colon? Other_____	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐
Diabetes	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Neuropathy	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Connective Tissue Disorder? EDS?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Celiac Disease	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Anxiety	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Depression	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Autoimmune dz Rheumatoid arthritis.? Lupus?	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐

Additional History Information:

Additional History Information: