

Mast Cell Activation Disorders On the Rise

By Mark L. Fuerst

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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.

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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 D₂ (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 osteoporosis⁴ and unexplained gastrointestinal (GI) symptoms⁵ 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 C₄, or prostaglandin D₂, 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.

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

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 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)	<input type="radio"/> Headache disorders
	<input type="radio"/> Mood disorders (anxiety and/ or depression?)
	<input type="radio"/> Pain syndrome
	<input type="radio"/> Tingling /Paresthesias /Weakness
	<input type="radio"/> Difficulty with concentration?
	<input type="radio"/> Difficulty with memory?
	<input type="radio"/> Difficulty with balance?
Eyes/ Ears/ Nose / Sinuses/Throat	<input type="radio"/> Watery runny nose, Sneezing fits?
	<input type="radio"/> Nasal obstruction?
	<input type="radio"/> Itchy nose?
	<input type="radio"/> feeling of being unable to breathe through your nose??
	<input type="radio"/> mucus in the back of your throat / “post nasal drip”?
	<input type="radio"/> fullness /pain in ears ?
	<input type="radio"/> Watery, Itchy eyes?
Lungs (Asthma Screen)	<input type="radio"/> Have you had any trouble breathing?
	<input type="radio"/> Feeling short of breath?
	<input type="radio"/> Episodes of coughing?
	<input type="radio"/> Episodes of wheezing?
	<input type="radio"/> Have you ever been given an inhaler by a doctor to help your breathing?
Gastro-intestinal tract (Irritable bowel syndrome screen)	<input type="radio"/> Have discomfort or pain anywhere in your abdomen?
	<input type="radio"/> Do you have more frequent bowel movements or episode of diarrhea and/or constipation?
	<input type="radio"/> Do you experience bloating or abdominal distension, after eating?
	<input type="radio"/> Do you have to rush to the bathroom because of a sudden urge to have a bowel movement?
Uro-genital tract (screen for interstitial cystitis)	<input type="radio"/> Do you have pain in your bladder or pelvis (vagina, lower abdomen, urethra, perineum)?
	<input type="radio"/> Do you have pain or urge to urinate?
	<input type="radio"/> Do you get out of bed to urinate?
Screening for Urogenital problems in girls/women	<input type="radio"/> 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	<input type="radio"/> Do you experience urticaria (hives)?	
	<input type="radio"/> Do you experience angioedema (swelling of the tongue, lips, hands, feet)?	
	<input type="radio"/> Do you experience pruritis (itch without rash)?	
	<input type="radio"/> Do you experience or flushing (redness, heat sensation of the skin)?	
Cardiovascular	<input type="radio"/> Do you experience palpitations or extra heartbeats?	
	<input type="radio"/> Do you experience episodes of low blood pressure?	
	<input type="radio"/> Do you experience episodes of lightheadedness or nearly fainting?	
Musculo-skeletal system, Joints	<input type="radio"/> Do you experience increase joint pain or swelling? <input type="radio"/> Do you experience increase muscle cramps? <input type="radio"/> Do you experience muscle weakness?	
Anaphylaxis	<input type="radio"/> Have you ever been treated for anaphylaxis?	
	<input type="radio"/> 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)

<p>What happens? Place a "B" breathing troubles; "G", Gastrointestinal upset; "H" Headache; "R", Rash</p>			
<ul style="list-style-type: none"> <input type="checkbox"/> House Cleaning <input type="checkbox"/> Making the bed <input type="checkbox"/> Lawn mowing <input type="checkbox"/> Raking Leaves <input type="checkbox"/> Moldy or damp areas <input type="checkbox"/> Clear weather <input type="checkbox"/> Colds / flu-like symptoms <input type="checkbox"/> Smoke <input type="checkbox"/> Perfumes <input type="checkbox"/> Hair sprays <input type="checkbox"/> Soap powders <input type="checkbox"/> Laughing or crying <input type="checkbox"/> Exercise 	<ul style="list-style-type: none"> <input type="checkbox"/> Being outdoors <input type="checkbox"/> Being indoors <input type="checkbox"/> Cool air <input type="checkbox"/> Warm air <input type="checkbox"/> Cat dander <input type="checkbox"/> Dog dander <input type="checkbox"/> Other animals _____ <input type="checkbox"/> Anesthesia <input type="checkbox"/> Aspirin 	<ul style="list-style-type: none"> <input type="checkbox"/> Ibuprofen (Advil/Motrin) <input type="checkbox"/> Naprosyn(Aleve) <input type="checkbox"/> Lying down <input type="checkbox"/> Infections <input type="checkbox"/> Codeine <input type="checkbox"/> Opiods 	<ul style="list-style-type: none"> <input type="checkbox"/> Getting up in the morning <input type="checkbox"/> for women: menstrual period
<p>Adverse Reactions to Foods?</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Monosodium glutamate (MSG) <input type="checkbox"/> Aspartame (Nutrasweet) <input type="checkbox"/> Caffeine <input type="checkbox"/> Bananas <input type="checkbox"/> Garlic <input type="checkbox"/> Onion <input type="checkbox"/> Cheese <input type="checkbox"/> Wheat <input type="checkbox"/> Cow's Milk <input type="checkbox"/> Peanuts <input type="checkbox"/> Tree Nuts <input type="checkbox"/> Fish <input type="checkbox"/> Shellfish <input type="checkbox"/> Fresh Fruit _which ones? _____ (apples, peaches, cherries, melons, strawberries) <input type="checkbox"/> left-over food - reheated <input type="checkbox"/> Citrus Foods <input type="checkbox"/> Chocolate <input type="checkbox"/> Alcohol <input type="checkbox"/> Red Wine <input type="checkbox"/> Sulfite Containing Foods (wine, dried fruit, salad bars) <input type="checkbox"/> Preservatives (ex. sodium benzoate) <input type="checkbox"/> Other: _____ 		

Name_____

Screening questionnaire for an immune deficiency syndrome/disorder:

Signs and symptoms of immune deficiency (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: _____

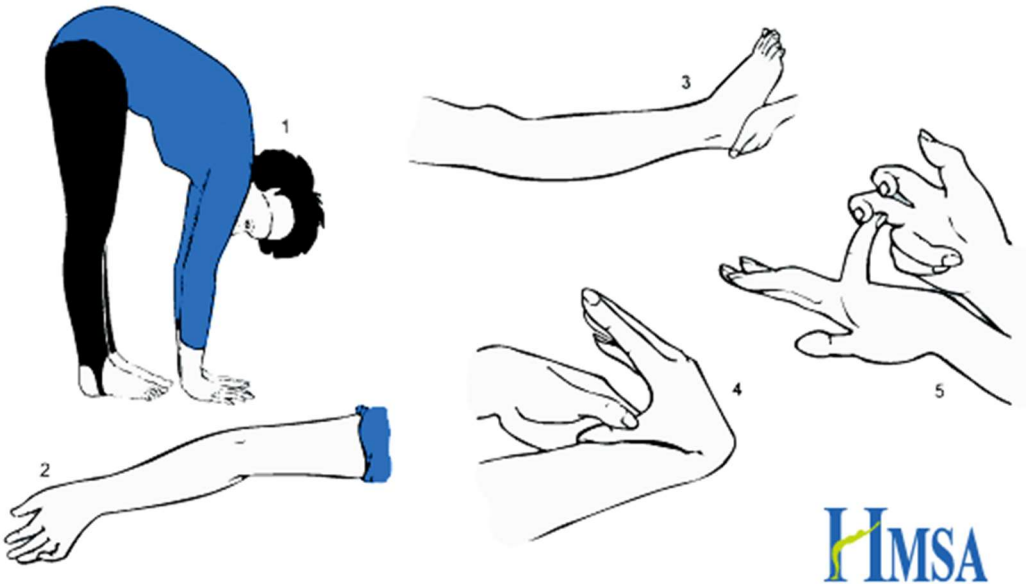
Name _____

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



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 _____

<u>Medications</u> (prescription, OTC)	<u>How Much</u>	<u>How Often</u>	<u>Helpful?</u>

Name _____ - New Patient Intake

<u>Supplements</u>	<u>How Much</u>	<u>How Often</u>	<u>Helpful?</u>

Name_____ - New Patient Intake

Environmental History

Do you live in:	<input type="checkbox"/> Single Family	<input type="checkbox"/> Apartment	<input type="checkbox"/> Condo
Carpeting in:	<input type="checkbox"/> Bedroom	<input type="checkbox"/> Playroom	
Do you have mold in:	<input type="checkbox"/> Basement	<input type="checkbox"/> Bathroom	
Pets?	<input type="checkbox"/> Cat	<input type="checkbox"/> Dog	Other _____
Do you smoke?	<input type="checkbox"/> Never	<input type="checkbox"/> Former	<input type="checkbox"/> Current
Air Conditioning in:	<input type="checkbox"/> Bedroom		
Fireplace in the home?	<input type="checkbox"/> yes <input type="checkbox"/> no		
In your home or workplace, Any problems with...	<input type="checkbox"/> mice	<input type="checkbox"/> roaches	<input type="checkbox"/> 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	<input type="checkbox"/> Cold Intolerance <input type="checkbox"/> Low Body Temperature <input type="checkbox"/> Low Blood Pressure <input type="checkbox"/> Daytime Sleepiness <input type="checkbox"/> Difficulty Falling Asleep <input type="checkbox"/> Early Waking <input type="checkbox"/> Fatigue <input type="checkbox"/> Fever <input type="checkbox"/> Flushing <input type="checkbox"/> Heat Intolerance <input type="checkbox"/> Night Waking <input type="checkbox"/> Nightmares <input type="checkbox"/> No Dream Recall
Eyes	<input type="checkbox"/> Itching <input type="checkbox"/> Tearing <input type="checkbox"/> Dry Eyes <input type="checkbox"/> Lid Margin Redness <input type="checkbox"/> Eye Crusting <input type="checkbox"/> Eye Pain <input type="checkbox"/> Vision problems (other than glasses) <input type="checkbox"/> Macular Degeneration <input type="checkbox"/> Vitreous Detachment <input type="checkbox"/> Retinal Detachment
Ears/Nose/Throat	<input type="checkbox"/> Hoarseness <input type="checkbox"/> Sore Throat <input type="checkbox"/> Nasal Stuffiness <input type="checkbox"/> Snoring <input type="checkbox"/> Nose Bleeds <input type="checkbox"/> Post Nasal Drip <input type="checkbox"/> Sinus Fullness <input type="checkbox"/> Sinus Infection <input type="checkbox"/> Distorted Sense of Smell <input type="checkbox"/> Distorted Taste <input type="checkbox"/> Ear Fullness <input type="checkbox"/> Ear Pain <input type="checkbox"/> Ear Ringing/Buzzing <input type="checkbox"/> Hearing Loss <input type="checkbox"/> Hearing Problems <input type="checkbox"/> Headache <input type="checkbox"/> Migraine <input type="checkbox"/> Sensitivity to Loud Noises
Heart	<input type="checkbox"/> Angina/chest pain <input type="checkbox"/> Breathlessness <input type="checkbox"/> Heart Murmur <input type="checkbox"/> Irregular Pulse <input type="checkbox"/> Palpitations <input type="checkbox"/> Phlebitis <input type="checkbox"/> Swollen Ankles/Feet <input type="checkbox"/> Varicose Veins
Respiratory	<input type="checkbox"/> Cough-Productive <input type="checkbox"/> Wheezing <input type="checkbox"/> Winter Stuffiness <input type="checkbox"/> Bronchitis <input type="checkbox"/> Shortness of Breath

<p>Gastrointestinal tract</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Bleeding Gums <input type="checkbox"/> Bloating <input type="checkbox"/> Blood in Stools <input type="checkbox"/> Burping <input type="checkbox"/> Canker Sores <input type="checkbox"/> Cold Sores <input type="checkbox"/> Constipation <input type="checkbox"/> Cracking at Corner of Lips <input type="checkbox"/> Cramps <input type="checkbox"/> Dentures w/Poor Chewing <input type="checkbox"/> Diarrhea <input type="checkbox"/> Alternating Diarrhea and Constipation <input type="checkbox"/> Difficulty Swallowing <input type="checkbox"/> Dry Mouth <input type="checkbox"/> Excess Flatulence/Gas <input type="checkbox"/> Fissures <input type="checkbox"/> Foods “Repeat” (Reflux) <input type="checkbox"/> Gas <input type="checkbox"/> Heartburn <input type="checkbox"/> Hemorrhoids <input type="checkbox"/> Indigestion <input type="checkbox"/> Nausea <input type="checkbox"/> Upper Abdominal Pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Liver Disease/ <input type="checkbox"/> Jaundice (Yellow Eyes or Skin) <input type="checkbox"/> Abnormal Liver Function Tests <input type="checkbox"/> Lower Abdominal Pain <input type="checkbox"/> Mucus in Stools <input type="checkbox"/> Periodontal Disease <input type="checkbox"/> Sore Tongue <input type="checkbox"/> Strong Stool Odor <input type="checkbox"/> Undigested Food in Stool
<p>Urinary Tract</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Bed Wetting <input type="checkbox"/> Hesitancy (trouble getting started) <input type="checkbox"/> Infection <input type="checkbox"/> Kidney Disease <input type="checkbox"/> Leaking/Incontinence <input type="checkbox"/> Pain/Burning <input type="checkbox"/> Prostate Infection <input type="checkbox"/> Urgency
<p>Musculoskeletal</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Back Muscle Spasm <input type="checkbox"/> Calf Cramps <input type="checkbox"/> Chest Tightness <input type="checkbox"/> Foot Cramps <input type="checkbox"/> Joint Deformity <input type="checkbox"/> Joint Pain <input type="checkbox"/> Joint Redness <input type="checkbox"/> Joint Stiffness <input type="checkbox"/> Muscle Pain <input type="checkbox"/> Muscle Spasms <input type="checkbox"/> Muscle Stiffness <input type="checkbox"/> Muscle Weakness <input type="checkbox"/> Neck Muscle Spasm <input type="checkbox"/> Tendonitis <input type="checkbox"/> Tension Headache <input type="checkbox"/> TMJ Problems

<p style="text-align: center;">Skin</p>	<p>__Rash __Itch __Hives/Welts __Swelling __Hair loss on head __Hair loss on Lower extremities __ Excessive sweating</p>
<p style="text-align: center;">Endocrine</p>	<p>__sensitive to the cold __sensitive to the heat __feel the need to drink lots of water __Can't Lose Weight <input type="checkbox"/> Can't Maintain Healthy Weight <input type="checkbox"/> Frequent Dieting <input type="checkbox"/> Poor Appetite <input type="checkbox"/> Salt Cravings <input type="checkbox"/> Carbohydrate Craving (breads, pastas) <input type="checkbox"/> Sweet Cravings (candy, cookies, cakes) <input type="checkbox"/> Chocolate Cravings <input type="checkbox"/> Caffeine Dependency __women: abnormal menstrual period</p>
<p style="text-align: center;">Neurology/ Mood</p>	<p><input type="checkbox"/> Anxiety <input type="checkbox"/> Auditory Hallucinations <input type="checkbox"/> Black-out <input type="checkbox"/> Depression</p> <p>Difficulty:</p> <p><input type="checkbox"/> Concentrating <input type="checkbox"/> With Balance <input type="checkbox"/> With Thinking <input type="checkbox"/> With Judgment <input type="checkbox"/> With Speech <input type="checkbox"/> With Memory</p> <p><input type="checkbox"/> Dizziness (Spinning) <input type="checkbox"/> Fainting <input type="checkbox"/> Fearfulness <input type="checkbox"/> Irritability <input type="checkbox"/> Light-headedness <input type="checkbox"/> Numbness <input type="checkbox"/> Other Phobias <input type="checkbox"/> Panic Attacks <input type="checkbox"/> Paranoia <input type="checkbox"/> Seizures <input type="checkbox"/> Suicidal Thoughts <input type="checkbox"/> Tingling <input type="checkbox"/> Tremor/Trembling <input type="checkbox"/> Visual Hallucinations</p>

Name _____ – New Patient Intake

Additional History Information:

Name _____ – New Patient Intake

Additional History Information: