“Holmes and Watson are on a camping trip. In the middle of the night Holmes wakes up and gives Dr. Watson a nudge. "Watson" he says, "look up in the sky and tell me what you see."

"I see millions of stars, Holmes," says Watson.

"And what do you conclude from that, Watson?"

Watson thinks for a moment. "Well," he says, "astronomically, it tells me that there are millions of galaxies and potentially billions of planets. Astrologically, I observe that Saturn is in Leo. Horologically, I deduce that the time is approximately a quarter past three. Meteorologically, I suspect that we will have a beautiful day tomorrow. Theologically, I see that God is all-powerful, and we are small and insignificant. Uh, what does it tell you, Holmes?"

Watson, you idiot! Someone has stolen our tent!
NOMENCLATURE

- Causalgia
- Sudek’s Atrophy
- Post traumatic Pain Syndrome
- Post traumatic Painful Arthrosis
- Sudek’s Dystrophy
- Post Traumatic Edema
- Reflex Dystrophy
- Shoulder Hand Syndrome
- Chronic Traumatic Edema
- Algodystrophy
- Peripheral Trophoneurosis
- Sympathalgia
- Reflex Sympathetic Dystrophy
- Reflex Neurovascular dystrophy
**SIGNS AND SYMPTOMS**

- Pain that is described as deep, aching, cold, burning, and/or increased skin sensitivity
- An initiating injury or traumatic event such as a sprain, fracture, minor surgery etc. that should not cause as severe a pain as being experienced or where the pain does not subside with healing
- Moderate to severe pain associated with allodynia (pain responses from stimuli that do not normally evoke pain)
- Continuing pain with hyperalgesia (heightened sensitivity to painful stimuli)
- Abnormal swelling in the affected area
- Abnormal hair or nail growth
- Abnormal skin color changes
- Abnormal sweating of the affected area
- Limited range of motion, weakness or other motor disorders such as paralysis or dystonia
1. Continuing pain, which is disproportionate to any inciting event.

2. Must report at least one symptom in *three of the four* following categories:
   - **Sensory**: Reports of hyperalgesia and/or allodynia
   - **Vasomotor**: Reports of temperature asymmetry and/or skin color changes and/or skin color asymmetry
   - **Sudomotor/edema**: Reports of edema and/or sweating changes and/or sweating asymmetry
   - **Motor/Trophic**: Reports of decreased range of motion and/or motor dysfunction (weakness, tremor, dystonia) and or trophic changes (hair, nails, skin)
3. Must display at least one sign at the time of evaluation in *two or more* of the following categories:

- **Sensory**: Evidence of hyperalgesia (to pinprick) and/or allodynia (to light touch and/or deep somatic pressure and/or joint movement)
- **Vasomotor**: Evidence of temperature asymmetry and/or skin color changes and/or skin color asymmetry
- **Sudomotor/edema**: Evidence of edema and/or sweating changes and/or sweating asymmetry
- **Motor/Trophic**: Evidence of decreased range of motion and/or motor dysfunction (weakness, tremor, dystonia) and or trophic changes (hair, nails, skin)

4. There is no other diagnosis that better explains the signs and symptoms

EXACERBATING FACTORS

Stress
Cold
Changing Barometric Pressure
Infection (Especially dental)
Humidity
Poor diet
Vaccinations
Toxins (Aluminum & Fluoride)
Certain Prescription Medications
Candida
Lyme disease
VASOMOTOR CHANGES

Two years later
ABNORMAL SWEATING
MOTOR DISTURBANCE—DYSTONIA
FACIAL DYSTONIA
NEUROGENIC EDEMA
ERYTHEMA
STASIS DERMATITIS
SYSTEMIC MANIFESTATIONS OF C.R.P.S.
CARDIAC
Gastrointestinal

Acid Peptic Disease
Irritable bowel symptoms
Nausea and vomiting.
Gastroparesis

We have had great success with the endoscopic administration of Botox into the pyloric sphincter. In many instances one to three such injections have stopped the vomiting for prolonged periods of time.
Dysphagia,
Indigestion
Constipation (frequently opioid induced)
Biliary dyskinesia
Incontinence, dysuria or inability/difficulty voiding.
The condition is usually misdiagnosed as **Interstitial Cystitis**

Botox injections into the pelvic floor have helped a great number of sufferers. Additionally, I have found that lumber epidural infusions of bupivicaine over a 5 day period works very well.

Ketamine has resolved this to a small degree as well.
HEADACHES

MIGRAINES(?)
TENSION HEADACHES
GREATER OCCIPITAL NEURALGIA
VISUAL DISTURBANCE

DOUBLE VISION
BLURRED VISION
OCULAR MIGRaines
VISION LOSS
PHOTOPHOBIA
BURNING OF THE EYES
Patients report significant otophobia.

Recently there has been an increase in individuals reporting significant discomfort from vibration, specifically the bass of stereos even through walls and from adjacent motor vehicles while travelling.

Intermittent and transient hoarseness comes from the effect of the disease on the branchial plexus and is frequently misdiagnosed as immune compromise
Unfortunately dental disease is rampant in patients with CRPS

Part of this stems from dietary indiscretions, part from immune system compromise and part from the disruption of the dental nerve roots.

Perhaps the greatest reason is that the side effects of common medications prescribed for chronic pain lead to a change in lifestyle, poor oral hygiene, poor nutrition and a loss of saliva (dry mouth) that result in decay, periodontal disease and ultimately tooth loss.
The most common finding apart from dry skin or hyperhidrosis is neurodermatitis. This can occur randomly on any area of the body. Lesions have the appearance of small acne–type eruptions that itch for hours to days and disappear spontaneously. There is no specific etiology apart from the CRPS and no treatment save for topical low potency steroids or anti–histamines to reduce the itch. If scratched they will scar.
Dercum's disease, is a rare condition characterized by multiple, painful lipomas. These lipomas mainly occur on the trunk, the upper arms and upper legs. The understanding of the cause and mechanism of Dercum’s disease remains unknown. Possible etiologies include: nervous system dysfunction, mechanical pressure on nerves, adipose tissue dysfunction and trauma.
OTHER SYMPTOMS

- Shortness of breath
- Inability to take a deep breath
- Neurogenic edema
- Muscle weakness/atrophy
- Endocrine dysfunction – adrenal, thyroid, hormonal imbalance
- Gardner Diamond Syndrome – spontaneous bruising in uninjured areas
- Lethargy
- Fatigue
- Sleep Disturbance
- Vertigo & Syncope
- Cognitive Dysfunction – STML

“Systemic Complications of Complex Regional Pain Syndrome” – Robert J. Schwartzman – Neuroscience & Medicine, 2012, 3, 225–242
MEDICATIONS

Antidepressants
Anti-anxiety agents
Antispasmodics
Calcium Channel Blockers
Antihypertensives
Anti-epileptics
Muscle Relaxants
Anti-inflammatories
Analgesics

Pamidronate
*Neridronate
Lenalidimide
Mexilitine
Capsaicin
DMSO
Topical Compounds
Dextromethorphan
Amantadine
Ketamine
IVIG
Opioid–induced hyperalgesia is a phenomenon observed in patients treated with opioids, who paradoxically demonstrate an increased sensitivity to painful stimuli.

Pain is associated with hyperalgesia, allodynia or both and may be experienced in a different location; and of a different quality than the original pain.
THERMOGRAPHY

“HEAT PICTURE”
WHAT IS THERMOGRAPHY?

Thermography uses state of the art, FDA approved infrared technology to provide an image of the body’s physiologic responses. This is a totally safe, non-radiologic, non-invasive painless test with absolutely NO known adverse effects and NO contraindications. It can be used at any age and provides a screening tool far superior to others in the early stages of some diseases.
A hallmark of CRPS is an excessive vasoconstriction of blood vessels that can cause cold hands and feet.

Because CRPS produces these neurovascular changes, infrared imaging, in a number of studies, has demonstrated a high degree of accuracy picking up these symptoms.
A 58 Y/O FEMALE PRESENTS WITH A HISTORY OF A FALL WITH THE LEFT ARM OUTSTRETCHED. THIS CAUSES A FRACTURE OF THE RADIUS AND THE ULNA (AND A MISSED BRACHIAL PLEXOPATHY). SHE DEVELOPED CRPS WITH A DYSTONIC LEFT UPPER EXTREMITY AND NO OTHER PAIN COMPLAINTS
TREATMENT

- Physical Therapy
- Occupational Therapy
- Medications
- Interventional Pain Management
- Implanted Devices
- Infusions
- Surgery
INTERVENTIONAL PAIN MANAGEMENT

- Injections – Epidurals, SGB, LSB, Facet blocks, local blocks (Bier, Sural)
- Infusions – epidural, intra-pleural-therapeutic and pre-pump trials
- Infusions – IV– Lidocaine
- Stimulators
- Intra-theecal Pumps
Ketamine was introduced in 1963 following a search for the “ideal” anesthetic, the name being derived from the “keto” derivative of an amine. The S or positive isomer has a four-fold greater affinity for the NMDA (N-methyl D-aspartate) receptor in the brain.
INITIAL USES

- Subanesthetically in burn victims during wound debridement and in removing staples from skin.
- A frequent use was in children for procedural pain especially in patients with congenital heart disease, asthma, trauma, hemodynamic instability burns or poor IV access
- Chronic non-malignant pain (especially in oral form)
- Cancer pain
- Dental sedation
MODES OF ADMINISTRATION

- IV
- Oral
- Topically – patch, gel, cream
- Intra–nasal
In cases of known or suspected RSD/CRPS, Ketamine should ALWAYS be used intravenously during the surgery to lessen the likelihood of spread of the disease.

“The major findings of this study are that Ketamine, used as adjunctive anesthesia in refractory CRPS patients undergoing surgery was successful in reducing pain, and blocking spread in severely affected, long standing patients” –

Hippocrates, the father of medicine said:

“Let food be thy medicine and medicine be thy food”
If you think eating healthy is expensive... just wait till you see the medical bills from eating cheap, crappy food.
Try Organic Food

...or as your grandparents called it, “Food”
Food from all major food groups are available in organic form. Organic meat poultry, eggs and dairy products come from animals that have not been given antibiotics or growth hormones. Animal feed must also be organic. Organic fruits vegetables and grains come from fields that have been free of synthetic fertilizers and pesticides for at least three years. These foods must be grown without treated sewage sludge, which is commonly used as fertilizer. Organic farmers use animal manure composted plant materials, etc.
Another reason to eat organic is to avoid genetically modified organisms (GMO’s). A GMO is any organism in which the genetic material has been altered in a way that does not occur in nature. This technology allows individual genes to be transferred from one organism to another.
Most people know that exercise is good for you but they don’t put it into practice. Just 20–30 minutes of simple walking can tone the muscles, accelerate the elimination of body weight, clear the lymphatics and burn calories. Whenever possible walk outdoors to get the added benefit of sunlight—still the best source of Vitamin D. Also, being out in nature has a very calming effect on the body.
WHAT IS THE BEST KIND OF EXERCISE?

ONE THAT YOU CAN & WILL DO!
BASIC SUPPLEMENTS

Fish Oil (Omega 3)
Probiotics
Multivitamins/multiminerals
Vitamin D3
Magnesium & Calcium
Digestive Enzymes
SEVEN “FOODS” TO AVOID

Aspartame (nutrasweet)
Additives like MSG & Nitrates
Sugar, fructose and simple carbohydrates
Caffeine
Yeast & Gluten
Dairy
Nightshades (tomatoes, potatoes, eggplant)
Gluten is a protein found in some grains which can irritate, inflame and rupture the lining of the digestive tract to the point that nutrients from food do not get absorbed well and sometimes not at all. In addition to digestive distress, associated disorders include bowel problems, headaches, increased risk of colon cancer, diabetes, depression & bi–polar disease because the nutrients responsible for controlling our moods cannot be absorbed.
GLUTEN SENSITIVITY

Gluten sensitivity is actually an autoimmune disease that creates inflammation throughout the body, with wide-ranging effects across all organ systems including your brain, heart, joints, digestive tract, and more. It can be the single cause behind many different "diseases." To correct these diseases, you need to treat the cause—which is often gluten sensitivity—not just the symptoms.
A review paper in *The New England Journal of Medicine* listed 55 "diseases" that can be caused by eating gluten. These include osteoporosis, irritable bowel disease, inflammatory bowel disease, anemia, cancer, fatigue, canker sores, rheumatoid arthritis, lupus, multiple sclerosis, and almost all other autoimmune diseases. Gluten is also linked to many psychiatric and neurological diseases, including anxiety, depression, schizophrenia, dementia, migraines, epilepsy, and neuropathies such as CTS, sensory ganglionopathies and fibromyalgia. It has also been linked to autism.
The pain is profound, chronic and widespread. It can migrate to all parts of the body and vary in intensity. The pain has been described as stabbing and shooting pain and deep muscular aching, throbbing, and twitching. Neurological complaints such as numbness, tingling, and burning are often present and add to the discomfort of the patient. The severity of the pain and stiffness is often worse in the morning. Aggravating factors that affect pain include cold/humid weather, non-restorative sleep, physical and mental fatigue, excessive physical activity, physical inactivity, anxiety and stress.
Additional symptoms may include: irritable bowel and bladder, headaches and migraines, restless legs syndrome (periodic limb movement disorder), impaired memory and concentration, skin sensitivities and rashes, dry eyes and mouth, anxiety, depression, ringing in the ears, dizziness, vision problems, Reynaud's Syndrome, neurological symptoms, and impaired coordination, sleep disturbance and fatigue.
The preceding two slides are directly from the

National Fibromyalgia Website
GLUTEN FREE DIET

INCLUDED:

Beans, seeds nuts in unprocessed form
Fresh eggs (preferably organic)
FRESH meats, fish & poultry (organic or free-range preferred)
Fruits & vegetables (preferably organic)
Most dairy products (preferably organic)
Amaranth, Arrowroot, Buckwheat, Flax, gluten–free flours, Millet, Quinoa, Rice, Tapioca
GLUTEN FREE DIET

AVOID

Beer
Pasta
Matzo
Bread
Cakes & Pies
Candy
Cereal
Cookies & Crackers
Croutons French Fires
Gravy
Imitation meats or seafood

Food Additives such as malt flavoring
Medications & Vitamins bound with gluten
Processed meats
Salad dressing
Sauces & Soy sauce
Seasoned Rice mixes
Snack foods (potato & tortilla chips)
Self-basting poultry
Soups
Vegetables in sauces

Mayo Clinic
GLUTEN FREE DIET

AVOID

Beer  
Pasta  
Matzo  
Bread  
Cakes & Pies  
Candy  
Cereal  
Cookies & Crackers  
Croutons French Fires  
Gravy  
Imitation meats or seafood  

Food Additives such as malt flavoring  
Medications & Vitamins bound with gluten  
Processed meats  
Salad dressing  
Sauces & Soy sauce  
Seasoned Rice mixes  
Snack foods (potato & tortilla chips)  
Self-basting poultry  
Soups  
Vegetables in sauces

Mayo Clinic
PAIN AND NUTRITIONAL SUPPLEMENTS

5HTP – acts as a painkiller and antidepressant

DLPA – has opiate agonist qualities

Methionine – helps reduce pain in the manner of anti-histamines – good in arthritis, Parkinson’s disease and depression

Fish oil – acts similar to ibuprofen

B6, zinc and manganese – aid in pain relief
Neurotransmitters are chemical messengers that facilitate communication between neurons. This affects every cell, tissue and organ system within the body. When neurotransmitters are out of balance this communication is altered causing a wide variety of physical, mental and emotional clinical symptoms.
NEUROTRANSMITTERS

COMMON CONDITIONS RELATED TO NT DYSFUNCTION:

Depression
Migraine
Anxiety
Obesity
Insomnia

PMS
Irritable bowel disease
ADHD
Hypertension
Fibromyalgia
MAJOR NEUROTRANSMITTERS

Glutamate (High in Parkinson’s, Alzheimer's)
GABA (low in anxiety and sleep problems)
Serotonin (low in Depression, migraines OCD)
Epinephrine (high in fear & anger, fight or flight)
Norepinephrine (High in anxiety & stress)
Dopamine (low in fatigue, poor memory)
Histamine (low in nausea, anxiety memory loss)
PEA (Beta-phenylethylaine) – (low in depression)
ALTERNATIVE TREATMENTS

- REIKI
- MASSAGE
- YOGA
- CHIROPRACTIC
- ACCUPUNCTURE
- QI GONG
Pre & Post REIKI—Week 1
WEEK FIVE
Some Diet & Lifestyle modifications

- Eat organic foods—consider gluten free
- Eliminate processed food, white sugar, white flour, white salt
- Eliminate commercial household cleaning products and toxic garden pesticides
- Drink pure filtered water
- Refuse synthetic hormone treatments
- Seek natural approaches to healthcare
- Detoxify the body
- Empower yourself with a positive outlook—adopt an attitude of gratitude
- Supplement your diet with appropriate vitamins and nutritional support
- Exercise
- Find a healthy avenue for stress release such as meditation, yoga, gardening, reading etc.
- Maintain healthy relationships
- Explore your spirituality
The Optimist Creed

Promise Yourself
To be so strong that nothing can disturb your peace of mind.

To talk health, happiness and prosperity to every person you meet.

To make all your friends feel that there is something in them.

To look at the sunny side of everything and make your optimism come true.

To think only of the best, to work only for the best, and to expect only the best.

To be just as enthusiastic about the success of others as you are about your own.

To forget the mistakes of the past and press on to the greater achievements of the future.

To wear a cheerful countenance at all times and give every living creature you meet a smile.

To give so much time to the improvement of yourself that you have no time to criticize others.

To be too large for worry, too noble for anger, too strong for fear, and too happy to permit the presence of trouble.
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