

Processing				
Fluency of speech	4%	(0–8%)	62%	(52–72%)
Reading comprehension	6%	(1–11%)	59%	(49–69%)
Spelling errors	8%	(3–13%)	56%	(46–66%)
Word substitution errors	5%	(1–9%)	55%	(45–65%)
Calculation	10%	(4–16%)	51%	(41–61%)
Optic ataxia	1%	(0–3%)	51%	(41–61%)
Auditory comprehension	5%	(1–9%)	49%	(39–59%)
Handwriting	8%	(3–13%)	47%	(37–57%)
Letter reversals	2%	(0-5%)	45%	(35–55%)
Fluency of written language	2%	(0-5%)	43%	(33–53%)
Number reversals	1%	(0–3%)	39%	(29–49%)
Left-right confusion	6%	(1–11%)	30%	(21–39%)

(0-5%)

(0-3%)

(0-6%)

(14-30%)

(13-29%)

(11-27%)

22%

21%

19%

2%

1%

3%

Transposition of

laterality

Spatial perceptual

distortions

Sound localization

## **Executive Functioning**



Executive functioning				
Brain fog	3%	(0-6%)	84%	(77–91%)
Unfocused concentration	4%	(0–8%)	81%	(73–89%)
Prioritizing multiple tasks	6%	(1–11%)	76%	(68–84%)

(0-6%)

(0-8%)

(0-8%)

(0-3%)

(0-6%)

74%

72%

56%

54%

51%

(65-83%)

(63-81%)

(46-66%)

(44-64%)

(41-61%)

Multitasking

Mental apathy

Obsessive

thoughts

Racing thoughts

Abstract

reasoning

Intrusive

thoughts

Time

management

3%

4%

4%

1%

3%

no data

no data

## **Imagery**



Imagery				
Vivid nightmares	3%	(0–6%)	38%	(28–48%)
Hypnagogic hallucinations	2%	(0-5%)	21%	(13–29%)
Illusions	2%	(0-5%)	20%	(12–28%)
Capacity for visual imagery	2%	(0-5%)	19%	(11–27%)
Intrusive aggressive images	1%	(0–3%)	19%	(11–27%)
Hallucinations (auditory, visual, olfactory, and tactile)	2%	(0–5%)	18%	(10–26%)
Intrusive images, other	1%	(0–3%)	10%	(4–16%)
Intrusive sexual images	1%	(0–3%)	6%	(1–11%)

#### **Intrusive Symptoms**

 "Frightening, stabbing, horrific images -usually of death, dying or pain and suffering. Often gory and unreal as in a horror story. Faces mostly with blood or terror exaggerated awful expressions. Visions of stabbing or killing often of those close to you or familiar. Episodic, not continuous. Fleeting faces most usually of the worse possible situation Helpless stumped bodies perhaps close to death. These images don't seem to necessarily be associated with a particular occasion, place or time, but come and invade the privacy of my mind."

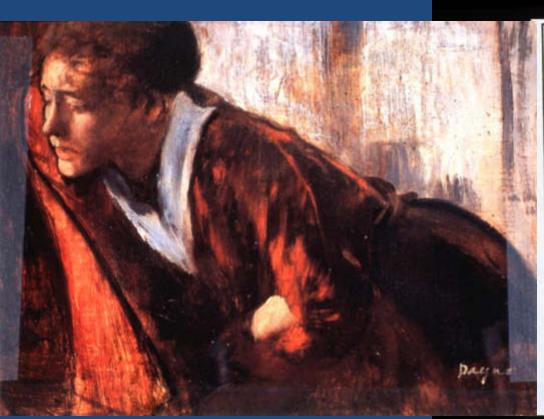
Emotional				
Decreased frustration tolerance	5%	(1–9%)	80%	(72–88%)
Sudden mood swings	3%	(0–6%)	74%	(65–83%)
Anhedonia	3%	(0-6%)	64%	(55–73%)
Crying spells	0%	(0-0%)	50%	(40–60%)
Hypervigilance	1%	(0–3%)	45%	(35–55%)
Paranoia	1%	(0–3%)	26%	(17–35%)
Hyperarousal	no data			
Dissociative symptoms				
Depersonalization	2%	(0–5%)	64%	(55–73%)
Derealization	1%	(0–3%)	29%	(20–38%)
Dissociative Episodes	0%	(0-0%)	12%	(6–18%)

Behavioral				
Decreased job/school performance	2%	(0-5%)	78%	(70–86%)
Decreased social functioning	6%	(1–11%)	72%	(63–81%)
Compensatory compulsions	2%	(0-5%)	58%	(48–68%)
Dropping objects	2%	(0–5%)	52%	(42–62%)
Exaggerated startle reflex	1%	(0–3%)	49%	(39–59%)
Explosive anger	3%	(0-6%)	39%	(29–49%)
Marital/Family problems	4%	(0–8%)	39%	(29–49%)
Accident prone	4%	(0-8%)	35%	(26–44%)
Disinhibition	2%	(0-5%)	33%	(24–42%)
Suicidal	1%	(0-3%)	28%	(19–37%)
Substance abuse	1%	(0–3%)	12%	(6–18%)
Legal difficulties	1%	(0–3%)	8%	(3–13%)
Homicidal	0%	(0-0%)	1%	(0–3%)

#### Suicide a Lym& & Associated Diseases

- Suicidality seen in LAD contributes to causing a significant number of previously unexplained suicides and is associated with immune-mediated and metabolic changes resulting in psychiatric and other symptoms which are possibly intensified by negative attitudes about LAD from others. Some LAD suicides are associated with being overwhelmed by multiple debilitating symptoms, and others are impulsive, bizarre, and unpredictable.
- Negative attitudes about LAD from family, friends, doctors, and the health care system may also contribute to suicide risk. By indirect calculations, it is estimated there are possibly over 1,200 LAD suicides in the US per year.

### Psychiatric Syndromes





syndromes				
Depression	9%	(3–15%)	79%	(71–87%)

(0-6%)

(0-5%)

(2-12%)

(0-5%)

(1-11%)

(0-6%)

53%

49%

36%

24%

16%

11%

(43-63%)

(39-59%)

(27-45%)

(16-32%)

(9-23%)

(5–17%)

3%

2%

7%

2%

6%

3%

Davabiatria

Generalized

anxiety disorder

Panic disorder

Social anxiety

disorder

Obsessive

compulsive

disorder

**Posttraumatic** 

stress disorder

Rapid cycling

bipolar

### Fatigue & Sleep Disorders





Vegetative				
Energy				
Fatigue	1%	(0-3%)	76%	(68–84%)
Sleep				
Non-restorative sleep	4%	(0-8%)	76%	(68–84%)
Insomnia				
Hypersomnia	2%	(0-5%)	73%	(64–82%)
Insomnia, mid	1%	(0–3%)	72%	(63–81%)
Insomnia, initial	5%	(1–9%)	70%	(61–79%)
Insomnia, late	1%	(0–3%)	58%	(48–68%)
Loss of circadian rhythm	5%	(1–9%)	44%	(34–54%)
Delayed sleep phase disorder	no data			
Sleep apnea, central	no data			
Sleep apnea, obstructive	no data			
Sleep paralysis	no data			
Cataplexy	no data			
Narcolepsy	no data			

Eating				
Anorexia	1%	(0–3%)	45%	(35–55%)
Weight loss	1%	(0–3%)	45%	(35–55%)
Non-appetite over-eating	2%	(0–5%)	34%	(25–43%)
Weight gain without increased food intake	1%	(0–3%)	27%	(18–36%)
Weight gain with				

(0-5%)

2%

22%

(14-30%)

increased food

intake

Sexual functioning

Decreased

arousal

Decreased

orgasm

Increased libido

Altered sexual

imagery

Decreased libido

4%

1%

2%

1%

0%

(0-8%)

(0-3%)

(0-5%)

(0-3%)

(0-0%)

60%

42%

41%

9%

3%

(50-70%)

(32-52%)

(31-51%)

(3-15%)

(0-6%)

# Intolerance to cold

**Temperature** 

Body

temperature

fluctuations

Night sweats

Chills

Intolerance to

heat

Decreased body

temperature

Flushing

Low grade

fevers

2%

3%

2%

2%

2%

5%

3%

1%

(0-5%)

(0-6%)

(0-5%)

(0-5%)

(0-5%)

(1-9%)

(0-6%)

(0-3%)

63% (54–72%) 60% (50–70%) 59% (49–69%) 58% (48–68%)

(55-73%)

(39-59%)

(37-57%)

64%

49%

47%

#### Headaches



Se mal de rère. Hola 'hola' pan pan! dindulindin\_dindrebudin hola hola thela "

## Neurological

Headache

**Tension** 

Cervical

radiculopathy

Temporal

mandibular joint

Sinus

Migraine

Cluster

Coital cephalgia

Thunderclap

#### Headache (neurological and musculoskeletal)

2%

5%

4%

0%

0%

no data

3% 2% 0%

(0-6%)

(0-5%)

(0-0%)

(0-5%)

(1-9%)

(0-8%)

(0-0%)

(0-0%)

68%

57%

43%

41%

41%

33%

10%

4%

(59-77%)

(47-67%)

(33-53%)

(31-51%)

(31-51%)

(24-42%)

(4-16%)

(0-8%)

#### **Cranial nerves** I Olfactory: loss of 2% (0-5%)22% (14-30%)smell, altered taste II Optic (and ophthalmologic) Photophobia to 3% 61% (0-6%)(51-71%)bright light 1% **Floaters** (0-3%)56% (46-66%)Blurred vision 2% 50% (0-5%)(40-60%)Sensitivity to fluorescent and 3% (0-6%)48% (38-58%)flicker 2% (0-5%)36% Eye pain (27-45%)Night blindness 4% (0-8%)36% (27-45%)Dry eyes 0% 32% (0-0%)(23-41%)Flashes 0% (0-0%)23% (15-31%)Conjunctivitis 0% (0-0%)19% ((11-27%)Peripheral 2% 18% (0-5%)(18-26%)shadows 1% Blind spots (0-3%)12% (6-18%)2% Optic neuritis 0% (0-0%)(0-5%)Papilledema 0% (0-0%)1% (0-3%)**Iritis** 1% 0% (0-0%)(0-3%)Panopsia no data

#### Cranial Nerves II-XII



III, IV, VI Double vision or eye drifts when tired, ptosis	2%	(0–5%)	36%	(27–45%)
V Sensory loss, pain	0%	(0-0%)	27%	(18–36%)
VII Bell's palsy	2%	(0-5%)	16%	(9–23%)
VIII Dizziness	2%	(0-5%)	53%	(43–63%)
Tinnitus	1%	(0–3%)	51%	(41–61%)
Motion sickness	9%	(3–15%)	40%	(30–50%)
Vertigo	1%	(0-3%)	29%	(20–38%)
Hearing loss	1%	(0-3%)	26%	(17–35%)
Tullio's	0%	(0-0%)	12%	(6–18%)
Mal de debarquement	no data			
IX, X Episodic loss of speech, choking on food, difficulty swallowing	0%	(0-0%)	36%	(27–45%)
XI. Sternocleidomastoi d and trapezius pain and/or paresis	0%	(0-0%)	44%	(34–54%)
XII. Tongue deviates to side	0%	(0–0%)	5%	(1–9%)

Seizures

**Partial** 

Grand mal

# res

2%

1%

(0-5%)

(0-3%)



(0-8%)

8%

4%

#### Other neurological

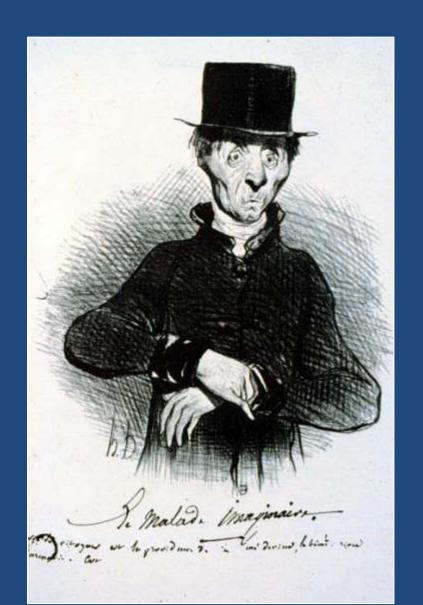
Other neurological				
Tingling	1%	(0–3%)	71%	(62–80%)
Paresis	2%	(0-5%)	66%	(57–75%)
Numbness	1%	(0–3%)	59%	(49–69%)
Twitching	1%	(0–3%)	56%	(46–66%)
Muscle tightness	0%	(0-0%)	56%	(46–66%)
Restless leg	5%	(1–9%)	50%	(40–60%)
Sensory loss	1%	(0–3%)	40%	(30–50%)
Tremor	3%	(0-6%)	40%	(30–50%)
Myoclonic jerks	1%	(0–3%)	38%	(28–48%)
Burning	1%	(0–3%)	36%	(27–45%)
Static electric sensation	0%	(0-0%)	35%	(26–44%)
Formication, crawling sensation	0%	(0-0%)	35%	(26–44%)
Stabbing sensation	0%	(0-0%)	28%	(19–37%)
Romberg positive	1%	(0–3%)	21%	(13–29%)
Herniated disc(s)	4%	(0-8%)	14%	(7–21%)
Ataxia	1%	(0–3%)	6%	(1–11%)
Other neurological	1%	(0–3%)	6%	(1–11%)
Extrapyramidal symptoms	0%	(0-0%)	3%	(0–6%)
Tourette's	0%	(0-0%)	2%	(0-5%)
Torticollis	0%	(0-0%)	1%	(0–3%)
Spasticity	1%	(0–3%)	1%	(0–3%)
Sensation of wetness	no data			
Sensation of vibration	no data			

#### Musculoskeletal Joint pain, swelling, tightness, and 2% (0-5%)81% (73-89%)crepitation (specify joints) 1% (0-3%)54% (44-64%)Myalgia Chondritis (ear, 0% (0-0%)38% (28-48%)nose, and costochondral) Fibromyalgia 1% (0-3%)36% (27-45%)Plantar fasciitis 0% (0-0%)33% (24-42%)**Epicondylitis** 2% (0-5%)20% (12-28%)**Tendonitis** (10-24%)3% (0-6%)17% Carpal tunnel 1% (0-3%)15% (8-22%)Bone 1% (0-3%)7% (2-12%)thinning/fractures Periostitis (tibia, ribs, iliac crest, 4% 7% (0-8%)(2-12%)sternum, clavicle, Deep bone pain no data Foot pain no data

**Ehlers-Danlos** 

no data

#### Cardiovascular



#### Cardiovascular (0-0%)Racing pulse 0% 48% (38-58%)(0-5%)2% 39% (29-49%)Chest pain Episodes rapid and slow heart 0% (0-0%)34% (25-43%)rate Mitral valve 4% (0-8%)20% (12-28%)prolapse Murmur 7% (2-12%)16% (9-23%)(0-5%)(8-22%)Hypertension 15% 2% Poetural (6-18%)(5-17%)

orthostatic hypotension	0%	(0-0%)	12%
Heart block	2%	(0-5%)	11%
Hypertensive crisis	1%	(0–3%)	3%

0%

no data

Pericarditis

Postural

orthostatic

tachycardia

Cardiomyopathy 0% 2% (0-0%)

(0-6%)(0-5%)(0-3%)(0-0%)1%

dental, and pulmonary
Shortness of breath

**Upper** 

respiratory,

Swollen glands

**Allergies** 

Tooth pain

Cough

Periodontal

disease

Asthma

Nose bleeds

Air hunger

1%

0%

7%

0%

1%

0%

4%

1%

no data

(0-3%)

(0-0%)

(2-12%)

(0-0%)

(0-3%)

(0-0%)

(0-8%)

(0-3%)

43%

41%

35%

32%

28%

19%

14%

7%

(33-53%)

(31-51%)

(26-44%)

(23-41%)

(19-37%)

(11-27%)

(7-21%)

(2-12%)

#### luuitalala la accel

Gastrointestinal

**Pancreatitis** 

Gall stones

Non-calculous

cholecystitis

Cyclic vomiting

Irritable bowel	6%	(1–11%)	50%	(40–60%)
Abdominal bloating	1%	(0–3%)	42%	(32–52%)
Upper GI distress	6%	(1–11%)	25%	(17–33%)
Inflammatory bowel	0%	(0-0%)	2%	(0-5%)
Cholecystitis	0%	(0-0%)	2%	(0-5%)

(0-0%)

(0-0%)

1%

1%

1%

1%

(0-3%)

(0-3%)

(0-3%)

(0-3%)

 Cholecystitis
 0%
 (0-0%)

 Gastroparesis
 0%
 (0-0%)

 Hepatitis
 0%
 (0-0%)

0%

0%

no data

no data

## Genitourinary

Menstrual

irregularity

Genital pain

Breast

tenderness, pain

Urinary

incontinence

Recurrent UTI

Lactation

Anesthesia of

genitalia

Atrophy of

genitalia

Interstitial cystitis

Spastic	bladder

1%

3%

1%

1%

1%

1%

0%

0%

0%

0%

(0-3%)

(0-6%)

(0-3%)

(0-3%)

(0-3%)

(0-3%)

(0-0%)

(0-0%)

(0-0%)

(0-0%)

47%

30%

27%

24%

18%

11%

8%

6%

3%

1%

(37-57%)

(21-39%)

(18-36%)

(16-32%)

(10-26%)

(5-17%)

(3-13%)

(1-11%)

(0-6%)

(0-3%)

Other				
Hair loss	2%	(0-5%)	47%	(37–57%)
Chronic pain	0%	(0-0%)	41%	(31–51%)
Alcohol intolerance	3%	(0–6%)	41%	(31–51%)
Ecchymosis	1%	(0–3%)	34%	(25–43%)
Multiple chemical sensitivity	2%	(0-5%)	25%	(17–33%)
Thyroid dysfunction	1%	(0–3%)	20%	(12–28%)
Hypoglycemia	2%	(0-5%)	20%	(12–28%)
Ankle edema	1%	(0–3%)	20%	(12–28%)
Adrenal insufficiency	0%	(0-0%)	10%	(4–16%)
Vasculitis	0%	(0-0%)	5%	(1–9%)
Wilson syndrome	0%	(0-0%)	4%	(0-8%)
Splenomegaly	0%	(0-0%)	4%	(0-8%)
Lymphocytoma	3%	(0-6%)	3%	(0-6%)
Acrodermatitis chronicum atrophicans	0%	(0-0%)	1%	(0–3%)
Erythema of palms and soles	0%	(0-0%)	0%	(0-0%)
Mold sensitivity	no data			
Bartonella tracks	no data			

## **Symptom**

patterns Progression of symptoms

Fluctuation of

symptoms

Stress increased

symptoms

Herxheimer

reaction

Antibiotic reduce

symptoms

A 28 day or

longer symptom

cycle

0%

0%

0%

0%

0%

0%

(0-0%)

(0-0%)

(0-0%)

(0-0%)

(0-0%)

(0-0%)

86%

82%

77%

73%

72%

43%

(79-93%)

(74-90%)

(69-85%)

(64 - 82%)

(63-81%)

(33-53%)

# Can our healthcare system meet the runaway demand for a specialty that is already experiencing acute shortages?

- According to multiple surveys, the number of Americans reporting at least one of the following conditions has <u>doubled from 20% to 40%</u> since the start of the pandemic:
- Anxiety
- Depression
- Substance use
- Suicidal ideation
- Stress
- Trauma

# Lyme Treatments with COVID-19 Therapeutic Potential

- Ivermectin
- Fluvoxamine
- Hydroxychloroquine, Mepron, other anti-malaria treatments
- Zithromax, other antibiotics
- Disulfiram
- Quercetin
- Treatments that improve immune functioning
- Vitamin A, B-3, C, D, zinc, NAC
- Methylene blue

## A Novel Plan to Deal with SARS-CoV-2 and COVID-19 Disease

- None of our active patients on antibacterial treatments have come down with severe COVID-19 disease which suggests being on antibacterial treatment somehow protects against SARS-CoV-2 and severe COVID-19 disease
- If a person develops symptoms associated with SARS-CoV-2 and/or the pulse oximeter drops below 92mmHg (normal, >95mmHg), immediately start treatment with doxycycline or minocycline at 100mg twice daily and continue for one week with oximeter monitoring

#### POST-ACUTE OR PROLONGED COVID-19: TREATMENT WITH IVERMECTIN FOR PATIENTS WITH PERSISTENT, OR POST-ACUTE SYMPTOMS

• 33 adult patients with Persistent or Post-Acute Symptoms of COVID-19 were treated with Ivermectin. In 94% of the 33 patients, clinical improvement to some degree (partial or total) was observed after 2 doses of Ivermectin. Total improvement (without any symptoms) was observed in 87.9% of the patients after the 2 daily doses of Ivermectin. In 12.1% of patients whose symptoms had not been completely resolved after the first 2 doses, additional doses of Ivermectin treatment were administered according to the protocol, and total clinical resolution of symptoms was observed in 94% of cases.

# Did Infections Caused by World War I Contribute to Causing World War II?

 How many of those who recovered from WWI-associated infections had residual neurological impairments that increased their risk for violence?



# Will these pandemics cause a chronic mental illness epidemic &/or WWIII?

- The COVID-19 & TBD pandemics are causing chronic neuropsychiatric impairments in millions, possibly billions globally.
- The losses from the pandemic & shutdowns have caused great socioeconomic damage.
- Will the combination of neuropsychiatric impairments and socioeconomic damage result in conflicts and possibly WWIII?

#### **Action Plan**

- Although competing with special interests, a greater recognition of the symptoms of Lyme diseases & COVID-19 and effective treatment can help prevent needless suffering, disability, death, developmental impairments, learning disabilities, mental illnesses, suicides, general medical illnesses and economic and noneconomic costs.
- Let's develop a protective legacy.

#### Recent Articles I

- Suicide and Lyme and associated diseases
   Neuropsychiatr Dis Treat. 2017 16;13:1575-87.
- Did Infections Caused by World War I Contribute to Causing World War II? Contagion Live. January 5, 2018.
- Aggressiveness, Violence, Homicidality, Homicide and Lyme Disease Neurol Disease and Treatment. 2018:14; 693—713
- Neuropsychiatric Lyme Borreliosis: An Overview with a Focus on a Specialty Psychiatrist's Clinical Practice. Healthcare (Basel) 2018. 6(3), 104
- Proposed Lyme Disease Guidelines and Psychiatric Illnesses Bransfield RC, Cook MJ, Bransfield DR. Healthcare (Basel). 2019. 9;7(3).
- A Tale of Two Pandemics <a href="https://aonm.org/wp-content/uploads/2020/07/18-25-1.pdf">https://aonm.org/wp-content/uploads/2020/07/18-25-1.pdf</a>
- (Published in IHCAN Magazine) <a href="https://www.ihcan-mag.com/">https://www.ihcan-mag.com/</a>

#### Recent Articles II

- Differentiating Psychosomatic, Somatopsychic, Multisystem Illnesses and Medical Uncertainty Bransfield RC. Friedman KJ. Healthcare (Basel). 2019 8;7(4). pii: E114.
- Chronic Lyme Disease: An Evidence-Based Definition by the ILADS Working Group Shor S, Szantyr B, Green C, Bransfield RC, Phillips S, Liegner K, Burrascano, J, Maloney E. Antibiotics. 2019. 8(4), 269.
- A Clinical Diagnostic System for Late Stage
   Neuropsychiatric Lyme Borreliosis Based upon an Analysis
   of 100 Patients Bransfield RC, Cook MJ, Aidlen DM, Javia S.
   Healthcare (Basel). 2020, 8(1), 13
- Hans Christiaan Klein, Lot de Witte, Robert Bransfield, and Peter Paul De Deyn. PET Imaging of Microglia Activation and Infection in Neuropsychiatric Disorders with Potential Infectious Origin. In book: PET and SPECT in Neurology. © Springer Nature Switzerland AG 2021 873 R. A. J. O. Dierckx et al. (eds.). December 2020.

#### Recent Videos I

- Dr Bransfield: A Tale of Two Pandemics Lyme & Covid May 26, 2020 https://www.youtube.com/watch?v=5InnliPUfP8&feature= youtu.be&fbclid=IwAR0Vbwhp FE5vWSruatn4kNuCZuE2X Q3bH1KxMJVhMcw7WfQn06-NDvccXE
- Dr. Robert Bransfield Q & A session YouTube https://www.youtube.com/watch?v=kL2Zt p 0LE&fbclid=I wAR0LtGoEetrzXMEY4Hmq5QoKVL10OPvZzgnV3RY0eQTAZi ic9r1 BhCDQR8
- Dr. Robert Bransfield on using Disulfiram for Lyme, depression and suicide prevention June 1, 2020 https://www.youtube.com/watch?v=9iYalHaGE7g&feature= emb logo
- Special Interview with Lyme Expert, Dr. Robert C.
   Bransfield YouTube Charles E Holman Foundation August 7, 2020 <a href="https://www.morgellonssurvey.org/special-interview-with-lyme-expert-dr-robert-c-bransfield/https://www.youtube.com/watch?v=wpeKTEvdKvE&feature=share&fbclid=lwAR0f2F6Vgcs6Q3teFYlpfGoB1pRGcLY3NPvNqdkFBmP9K JDEZJauV7GyWI</a>

#### Recent Videos II

- Part 1 Lyme & Associated Diseases & Addictive & Substance Abuse Disorders: the Hijacked Brain - YouTube August 2020 https://www.youtube.com/watch?v=YLfmfwK4V7M
- Part 2 Q&A Lyme & Associated Diseases & Addictive & Substance Abuse Disorders: the Hijacked Brain – YouTube 2020 https://www.youtube.com/watch?v=AFDI1O1wiAU
- Expert Opinions: IDSA Guidelines
   Project Lyme. Dec 17, 2020.
   https://www.youtube.com/watch?fbclid=lwAR3oGtaNjfGt4RaoUKK
   tsS3fVmNmdM1u HoSvC5fKVaEqbK2Szd Aqy2oQA&v=n9JNZO-B64E&feature=youtu.be
- The Monster Inside Me | Lyme Disease Documentary (Trailer)
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#### Thanks for your attention



Discussion and Questions?