PREPARATION FOR NEUROFEEDBACK AND/OR QEEG ASSESSMENT - PLEASE READ CARFULLY!

Things to avoid prior to testing:

- Caffeine 8 hours prior to testing
- Nicotine 3 hours prior to testing
- Alcohol 12 hours prior to testing
- Marijuana 72 hours prior to testing
- Over-the-counter medications, other recreational drugs, herbal teas and/or other herbal preparations 72 hours prior to testing

Please continue to take any prescribed medications per your physician's instructions.

- Please indicate all drugs on the intake forms.
- If you or your child are taking *stimulant medication* (Ritalin, etc.) or other ADHD medication (such as Strattera), please check with your physician regarding delaying the morning dose until after the evaluation is complete. This is not mandatory, but if the medication is taken, testing will produce results that are influenced by the medication rather than being a true picture of the un-medicated state of the individual being evaluated. If your child normally takes 'medication holidays' on weekends for example, or if your physician agrees, then plan to avoid the AM dose until after the evaluation.
- If the stimulants are prescribed for narcolepsy, please have someone drive you to the appointment if you will be delaying the AM dose.
- Please avoid anti-histamines, cold remedies and other allergy medications unless prescribed by your physician. If you are using prescribed versions of these medications and your physician has instructed you to take these 'PRN' (as needed), it would be best if you did not use them prior to your evaluation, unless you cannot function without them.

Evaluation appointments are generally scheduled for mornings due to physiological changes that take place throughout the day, and because certain tests reflect time of day factors that may affect the validity of the outcomes.

- Please eat according to your usual schedule, get a good night sleep (8 hours or more if possible), and arrive a few minutes early with your forms filled out completely.
- Please wash your hair and scalp the morning of the session and do not use *any* styling gels, hair sprays, hair treatments, conditioners, oils or any other preparations that might interfere with sensor connections to the scalp. Hair must be *completely dry* to the scalp prior to the appointment. Please brush and/or comb hair to remove tangles and remove clips, pins, extensions, hair pieces, wigs and any other head covering.
- Please remove all jewelry prior to the testing appointment.
- If you have any additional questions, please call the office at 224-636-6333.

NEUROSCIENCE INSTITUTE – INTAKE / HISTORY					
Name of Client: Address:			Age: DOB:		
City/State/Zip: Phone: (home)	(w	/ork)	(fax)		
Parent(s) or Guardian(s) of minor					
Name(s): Address: (if different from above) _ City/State/Zip:					
Phone: (home)	(w	ork)	(fax)		
			practor, therapist, naturopath, bodyworker, etc):		
Name:			Phone:		
Referral source if referred to this	office:		Phone: Current medications:		
Diagnosis:			Current medications:		
Insurance Information:					
Insurance company name:			Group number:		
Name of insured:			DOB:		
Relationship to client:			Employer:		
Briefly list other approaches you have counseling, alternative medicine, etc.	ve tried	for this	condition: (Medication, behavior therapy,		
What benefits do you hope to gain f	rom EE	G neuro	ofeedback?:		
<u>Developmental History – Please</u>	indicat	e your (o	or your child's) history in relation to the following:		
Prenatal and Birth	Yes	No	<u>Details</u>		
Prenatal stress or injury		<u> </u>			
Prenatal drug/alcohol exposure					
Birth trauma (forceps, breech, etc.) Anesthesia, pain medications					
Anoxia (oxygen deprivation @ birth)					
Premature/late delivery					
Medical problems after birth			0.1		
Birth weight	Adopt	ed at age	Other		

Growth and Develop	<u>nent</u>	Typical	More	<u>Less</u> <u>Detail</u>	<u>ls</u>		
Activity level							
Motor/coordination de	velopment						
Infections/allergies							
Emotional developmen	t						
Behavior concerns							
Handedness developme	ent						
Appetite/digestion							
Language/speech devel	opment						
Dharaigal Tuganaga		Vac	No	Dataila			
Physical Traumas		<u>Yes</u>	<u>No</u>	<u>Details</u>			
Head injury (even mine							
Coma (loss of consciou	isness)						
Accidents (list all)							
High fever							
Serious illness							
Surgery							
CNS infection							
Drug overdose/poisoni	ng						
Recreational drug use							
Anoxia							
Stroke							
Psychological Stress/I	ife Changes	Yes	No	Details			
Death in family	are changes	105	110	Details			
Divorce/remarriage							
Move/relocation							
School change							
Job change	•••						
Family member chronic	c illness						
Γ							
Symptom Checklist							
Please indicate if the clie	nt and/or family m	ember(s)	(parents.	grandparents, brothers, s	isters, aunts, un	cles, and/or	children)
currently experience or					, ,	,	,
Symptom _	√if client √if fam	ilv √ifcı	ırrent	Symptom	√if client	√if family	√if current
<u> </u>	<u>,</u> <u>,</u>			<u> </u>	<u>,</u>		
Feeling Tense				Shy with People			
<u>Depressed</u>				<u>Allergies</u>			
Always on the go				Asthma			
School/work problem Impulsivity				Seizures / Epilepsy			
Hyperactivity				Chronic pain Food sensitivity			
Attention problems				Head injury			
Behavior problems				Memory problems			
Vocal or motor tics				Temper tantrums			
Sleep problems				Rages			
Legal trouble				Verbal Aggression			
<u>Headaches</u>				Physical Aggression	<u></u>		
Feeling lonely				Stubbornness			
Frequent illness				Addictions			
Repetitive thoughts				Bowel disturbances			
Repetitive behavior				Chronic fatigue/FMS	<u></u>		

Inferiority feelings	PMS
<u>Dizziness</u>	Physical/sexual abuse
Fainting spells	
Heart palpitations	Unable to relax
Stomach trouble	Can't make decisions
Poor appetite	Communication prob.
Picky eater	Problems at home
Nightmares	Financial problems
Alcohol/drug problem	Any chronic illness
Feeling panicky	
Tremors	Other, specify:
Suicidal ideas	
Please circle the five current problems listed above which are to Therapist's comments:	

CREDIT CARD AUTHORIZATION

PATIENT NAME:	
DATES OF SERVICE:	
NAME ON CREDIT CARD:	
CREDIT CARD TYPE:	
CREDIT CARD NUMBER:	
EXP DATE:	
SEC CODE:	
BILLING ZIP CODE:	
I AUTHORIZE THE USE OF THE ABOVE CREDIT CARD FOR SERVICES RENDERED, TO INCLUDE COPAYS, COINSURANCES, DEDUCTIBLES, AND CHARGES NOT COVERED INSURANCE.	
AMOUNT TO BE BILLED (if known):	
SIGNATURE	

DR JANSONS OFFICE HAS NO WAY OF GUARANTEEING YOUR INSURANCE WILL PAY.

INSURANCE COMPANIES ONLY VERIFY YOU HAVE COVERAGE BUT WILL NEVER FINALIZE OR PROMISE ANYTHING IN REGARDS TO WHAT THEY ARE WILLING TO PAY UNTIL **AFTER** THE SERVICE IS CHARGED.

OUR OFFICE WILL NEVER SPEAK ON BEHALF OF INSURANCE OR QUOTE/ GUARANTEE WHAT YOUR INSURANCE COMPANY WILL END UP PAYING. WE ARE NEVER GIVEN THAT INFORMATION PRIOR TO THE SERVICE--BECAUSE IT DOES NOT EXIST. COPAY/DEDUCTIBLE/COINSURNACE RESEARCH IS THE RESPONSIBILITY OF THE POLICY HOLDER NOT DR JANSONS OFFICE. Informed Consent for Neurofeedback/Cognitive Retraining

Definition:

Neurofeedback uses EEG (electroencephalogram) neurofeedback and audio-visual entrainment (AVE) technology to help the brain correct dysregulated brainwave activity found to be associated with many psychological and behavioral problems. By monitoring, analyzing, and re-regulating brain electrical activity, neurofeedback teaches the brain how to increase or decrease neural activity that corresponds to specific emotional and behavioral symptoms.

Applications:

Neurofeedback has been used to treat attention deficit and hyperactivity disorder, learning disabilities, anxiety and panic disorder, depression, chronic pain, obsessive-compulsive disorder, post-traumatic stress disorder, traumatic brain injury and post-concussion syndrome, conduct disorder, attachment disorder, autism, Asperger's disorder, schizophrenia, stroke, epilepsy, dementia, sleep disorders, developmental disorders, tics, alcoholism and substance abuse. It has also been used by NASA and Fortune 500 companies to improve alertness, emotional regulation, mental flexibility and to promote peak performance.

Efficacy:

Some selected research findings on neurofeedback have found a 75% reduction in ADHD symptoms, increase of 9 to 23 IQ points for learning disabled children, 80% sobriety for alcoholics after four year follow-up, only 20% relapse of panic attacks after 30 months for veterans with PTSD, 70% reduction in epileptic seizures, 88% improvement in depression after one year, and significant increases in sociability, communication, health, and sensory awareness of autistic children. Although the research is impressive, neurofeedback is not a "cure-all." All clients should not expect these results. Individual results will vary depending upon the type and severity of problem, client cooperation, and client completion of the neurofeedback treatment recommendations.

Neurofeedback has been and continues to be reviewed by the Food and Drug Administration (FDA). To date the FDA has found neurofeedback equipment to be safe and suitable for use by qualified professionals. It has also found it to be effective for relaxation and muscle reeducation. The American Psychological Association (2017) noted that, "Neurofeedback remains a viable treatment of choice for patients with sufficient time, money and motivation to pursue it." However, they also urged continued research to better understand and differentiate the neurological and client demand mechanisms that likely contribute to its effectiveness. For more information and links to the basic research on neurofeedback see our website www.drlaurajansons.com

Fees:

All treatment packages for cash clients must be paid in advance and are not refundable. Insurance coverage is not guaranteed and depends upon the limitations of your individual policy. You should inquire about your insurance coverage, Norris Institute cannot speak for or guarantee what your policy will cover so be prepared to ask the following questions of your insurance company:

- Will you reimburse the following CPT codes: 95816 (EEG assessment) and 96158
 AND 96159 (cognitive retraining)?
- If covered under medical, do I need a referral from my primary care physician?
- How many sessions will you cover (20, 30, 50, unlimited)?

Procedure:

Neurofeedback is a noninvasive and generally comfortable procedure. Following a detailed evaluation, including a psychosocial interview and an EEG baseline assessment, a client is assigned one or more training protocols and then prepared for a neurofeedback session. The client is seated in a comfortable chair in front of a computer monitor and fitted with electrode sensors. A small amount of conductive paste is used to secure electrodes to the head. Two adhesive electrodes are attached behind each ear. These do not hurt and act only to convey brainwave activity between the client and computer software. Electrodes "do not" emit any electrical charge.

Next, specialized computer software operates a reinforcing computer game or DVD, that teaches the client how to reregulate their brainwave activity. This requires no conscious effort but provides the brain with constant feedback until the brain learns to function in a more beneficial manner. A neurofeedback session usually takes about 30 minutes. Most clients usually need 20 to 40, total neurofeedback sessions. More complex problems can require from 50 to 100 sessions. Neurofeedback may also involve preparatory training in Heart Rate Variability, Respiration and Peripheral Skin Temperature biofeedback. These have been found to significantly enhance neurofeedback effectiveness. Once training is completed, the brain is re-regulated, and no further treatment is usually required. Should the brain later experience a dysregulating event (i.e. substance abuse, emotional trauma, head injury or other unhealthy lifestyle changes), retraining may be needed.

Medication Issues:

As neurofeedback training concludes, some clients may notice an increase in side effects or uncomfortable physiological changes in response to their current medication. This may indicate that the client's need for medication has diminished and it may be time to consider reducing or discontinuing the medication altogether. Any medication adjustment is advised only after consultation with your physician.

Best Candidates:

The best candidates for neurofeedback training have a specific problem that can be related to a specific region of brain functioning such as ADHD, depression, anxiety and more typical behavioral problems. They may be on medication. They come from loving families, are not in a current crisis, have a regulated sleep pattern, do not have a history of serious interpersonal problems, have supportive relationships with school and work, have a relatively structured home environment and are willing to follow suggestions regarding diet, exercise, sleep, limited video game playing, and other therapeutic interventions including personal, marital and family counseling. They are also able to meet the financial and time commitments necessary to complete the full recommended treatment schedule.

Clients with more complicated, vague or unusual complaints, such as fibromyalgia, severe sleep deprivation, or those with more complex problems such as dissociative identity disorder, bipolar or borderline personality disorder, children with autism, severe conduct or learning disorders, clients with psychotic behavior or those with traumatic brain injury, seizures, strokes or significant cognitive deficits, may require more extensive neurotherapy treatment, combined with counseling and ongoing medical treatment. The complexity of these problems responds best to a multidisciplinary approach in order to achieve meaningful symptom reduction.

Neurofeedback is also not indicated for those who are experiencing significant immediate psychosocial distress, those under the influence of substances (alcohol, drugs, and nicotine) at the time of treatment, unwilling to follow other therapeutic suggestions and those who cannot meet the financial and time commitments necessary to complete the full neurofeedback training program.

Limitations:

Neurofeedback is one of three treatment options, including counseling and medication, for the effective resolution of psychological problems. In many cases, client's problems are best addressed with a combination of these approaches. In others, one approach may be sufficient. Neurofeedback training cannot guarantee the full elimination of problem symptoms and is not equally effective with all problems and clients. Neurofeedback is not a substitute for an MRI or a CAT Scan. It cannot diagnose a head injury, tumors, epilepsy or other medical conditions and is not effective in treating the effects of physiological brain damage. These conditions must be evaluated and treated by a physician or neurologist.

Client Role:

Clients are expected to monitor and communicate their subjective experience of neurofeedback with the specialist. Clients are also expected to complete periodic (every 10 sessions) progress reports, so neurofeedback effectiveness can be evaluated, protocol adjustments be made and treatment extended or discontinued as indicated.

Adverse Side Effects: Possible Transient Side effects are very rare, usually minor and short-lasting. They can include initial headaches, tiredness, mood swings, feeling spacey or anxious, having difficulty falling asleep, experiencing nightmares, eye ache, emotional confusion, and nausea. Most of these pass in a short time and only occur in 1 to 3% of clients. Some ADHD clients report a period of boredom during the middle stages of treatment while their brainwaves become more familiar with their re-regulated levels of activity. Some PTSD clients report moodiness and the emergence of nightmares or distressing memories that can be discussed in traditional counseling with their therapist. While using, fifty percent of persons with substance abuse problems may develop a more negative and dissatisfying response to their substance of abuse. Clients with more moderate to severe problems may feel more emotional as their brain function begins to improve, necessitating counseling, to learn healthier coping strategies toward better management of these still upsetting but more normal emotional states. Finally, the skin beneath the electrode sensors can sometimes become slightly irritated. This is usually a minor problem that quickly resolves itself.

Voluntary Participation and Consent: I have been informed of the reasons why neurofeedback training has been recommended to me. I understand the other treatment options available (counseling and/or medication) if I or my child decline to give my informed consent. I have read this form and understand the potential benefits, costs, limitations, and possible side effects of neurofeedback. I understand that although the research on neurofeedback is very promising, individual results cannot be guaranteed and depend on many factors including: the extent of my problems, my willingness to engage the full range of treatment recommendations, and the limits of neurofeedback treatment for any specific condition. I hereby agree, freely and voluntarily, to undergo (or have my child undergo) neurofeedback.

 Client or Parent	 Date	 Neurofeedback	Date	
		Specialist		

WHAT IS IT?

Neurofeedback is a technology-based learning tool for improving brain functioning which in turn can positively effect mood, lower anxiety, increase executive functioning, regulate behavior, facilitate brain development, and enhance performance.

WHAT'S IT FOR?

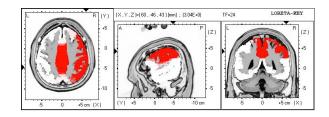
Neurofeedback can be utilized with any condition that would be treated by traditional psychotherapy such as anxiety, depression, PTSD, and addiction. It is applied in many physiological conditions such as traumatic brain injury (TBI), insomnia, and migraines. It can also be effective with behavioral and developmental disorders such as ADHD, learning disorders, and autism spectrum disorders. And, this type of training is beneficial to those seeking peak performance in sports, music, or in their vocation.

Many times, participants reduce or eliminate their need for psychotropic medications.



ASSESSMENT

With state of the art brain scanning and neuroimaging equipment, areas of brain dysregulation can be identified on a computer monitor as a 3D image. Dr. Jansons is a board-certified neuropsychologist with a background in functional neuroanatamy who can, with other traditional neuropsychological tests, assist in understanding brain-behavior disturbances and make recommendations for treatment. Often this type of assessment improves the treatment you are already receiving from psychologists, psychiatrists, counselors, other doctors, and/or facilitates learning from teachers, tutoring and physical therapy. If you are unsure of your diagnosis, if your current treatment is not working, if you want to make sure you are properly diagnosed before taking a new medication, if you are interested in a non-medication approach to behavior change and emotional relief, or if you want to move into the next generation and already, as we do, realize traditional subjective diagnoses methods and classification systems are obsolete, this type of assessment is invaluable.



TREATMENT PLAN

After an assessment, a treatment plan is developed to determine which type of neurofeedback training would be best to assist you with your situation. Dr. Jansons has over 20 years of neuropsychology and psychotherapy experience and can recommend effective therapy techniques, assist in determining medication options, and refer to other specialists based on individual needs. She can also provide neurotherapy which is a combination of traditional psychotherapy and neurofeedback techniques.

TRAINING

The neurofeedback training and learning involves placing sensors on the scalp to read current brain wave activity, commonly known as the EEG record.

Even in those people with severe behavioral or emotional symptoms, brain activity frequently moves in and out of normal ranges. All people have at least some moments of normal brain activity.

These "normal", better regulated moments are captured by the sensors and transferred to a computer which projects the information to a computer screen and to a reward system that trains, via gaming or other multimedia, the individual to produce more of the newly regulated activity. Repeated rewards strengthen the desired response and learning occurs.

LEARN FROM OBJECTIVE FEEDBACK

Biofeedback and Neurofeedback

Once an individualized treatment plan is created, the neurofeedback participant is trained in basic biofeedback and physiological self-regulation

methods, for example body temperature regulation, breathing, heart rate management, and/or muscle training. Then, the individual is supervised to learn self-regulation of their brain activity. When



proper brain activity is rewarded, and rewards are repeated over time, the person experiences a permanent change—this is based on classic psychological principles of new learning. This is exactly the type of permanent learning that occurs when acquiring any new procedure such as when learning to play a sport or musical instrument. These changes are reflected in behavior, emotion or other brain state being rewarded. Neurotherapy is desirable for those who are less interested in talk therapy and more interested in action oriented, "doing".



FINDINGS FROM TRADITIONAL **OUTCOME STUDIES?***

ADHD

"In line with the AAPB and ISNR guidelines for rating clinical efficacy, we conclude that neurofeedback treatment for ADHD can be considered "Efficacious and Specific" (Level 5) with a large ES (effect size) for

inattention and impulsivity...".

PTSD

"...80% reduction in panic attacks, improved cognitive functioning, reduced symptoms of attention deficit hyperactivity disorder, significant decreases in addiction, medication use and relapse rates, marked improvement in emotional and behavioral regulation and decreases in anxiety and depression."

TRAUMATIC BRAIN INJURY

"... 88% of 26 TBI patients with persistent post-traumatic symptoms had improved their EEG coherence (neuronal network communication) scores by 50% and were then able to return to previous employment."

PEAK PERFORMANCE

"A study of musicians at London's Royal College of Music, using an extended creativity protocol, found a '17% increase' in ratings of musical performance including increases in musical understanding,

imagination and communication with the audience."

HEADACHES AND MIGRAINES

"At 1-year follow-up, 54% of the neurofeedback group experienced complete cessation of migraines compared with no one in the medication treatment group."

ANXIETY

"Of the eight studies of anxiety that were reviewed, seven found positive changes. Another study (Passini, Watson, Dehnel, Herder, & Watkins, 1977) used only 10 hours of neurofeedback with anxious alcoholics and found very significant improvements in state and trait anxiety compared to a control group, with results sustained on 18-month follow-up."

DEPRESSION

A blinded, placebo-controlled study (Choi et al., 2011) demonstrated the superiority of neurofeedback over a placebo treatment in reducing depression while improving executive function.

AUTISM SPECTRUM

"Coben found a 42% reduction in overall autistic symptoms, including a 55% decrease in social interaction deficits and improvements in communication and social interaction deficits of 55% and 52%, respectively."

LEARNING DISORDERS

"In the first 12 cases reported by Walker (Walker & Norman, 2006) after 30 to 35 sessions, all the children had improved at least two grade levels in reading ability"

ADDICTION

"On 1-year follow-up, 77% of patients receiving neurofeedback remained sober versus only 44% of traditional treatment patients".

INSOMNIA

"Early research on the use of neurofeedback for insomnia, found that it can significantly improve the neurological consequences associated with inadequate sleep."

*full research references at www.drlaurajansons.com



DR. LAURA JANSONS, PSYD, ABN, BCN BOARD CERTIFIED NEUROPSYCHOLOGIST BOARD CERTIFIED IN NEUROFEEDBACK

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