Summary of Protocol (prior to AVSD repair)

PSC
Nutrivene-D
DHA
Phosphatidyl Choline
doTERRA Essential Oils (EO)

1. Embryonic Plant Extracts (EPE) that also contains Plant Stem Cells (PSC®)

EPEs are medicinal plants that are produced from embryonic plant tissues (the rootlets, young shoots, internal bark, germinating seeds or buds) instead of making tinctures from adult plant tissues (flowers, bark, leaves, stems). There are many properties that embryonic plants have that are lacking or absent in adult plants. These include:

- Plant growth hormones (auxins, gibberellins, cytokinins, brassinosteroids)
- Plant stress hormones (abscisic acid, ethylene, jasmonic acid, salicylates)
- Plant immune hormones (salicylates, jasmonic acid, auxins)
- Amino acids (building blocks)
- Nucleic acids (DNA, RNA- repair, antibodies)
- Bioflavonoids –PSCs are especially high in quercetin aglycone, anthocyanins, etc.
- Vitamins- nourishing
- Minerals/Oligo-elements (responsible for enzyme production & ionic channels)
- Anti-microbial constituents (anti bacterial, viral, fungal, parasitic)
- Phytochelating agents (sap, enzymes, anti-oxidants)
- Metallothionenes
These unique extracts have a very wide spread healing effect on the body, without the risk of toxicity that often can happen with adult plants. Most plants have bipolar/biphasic properties, meaning they will modulate (constipation/diarrhea, hypo/hypertensive, anti/coagulant). They often contain up to 10 times more active phytochemical constituent than adult plants. Another benefit is that dosing is significantly less than that of adult plants, which makes them especially great to use in infants and children. For more go to [www.epsce.com](http://www.epsce.com)- there is general information on the website- to get more detailed information, a professional account is needed.

**EPE/PSCs used in Connor’s profile**

My goals in using this type of therapy are

- Prevention of common issues found in people with Down syndrome, which means halting and reversing neurological degeneration caused in large part from oxidative stress due to gene overexpression
- Stimulate neurogenesis, prevent neuron loss d/t overexpression of genes in Ds
- Support the body in detoxification to reduce oxidative stress from exogenous sources
- Reduce endogenous oxidative stress caused by overexpression of genes
- Stimulate repair of tissues harmed by oxidative stress
- Stimulate growth and changes in other phenotype expressions common in Ds
- Prevent Cognitive delay /decline
- Manipulate gene expression
- Support and modulate immune response
- Support endocrine issues commonly found in Ds (including but not limited to hypothyroid and hypo HGH)
- Symptomatic support as needed

Once the atrioventricular septal defect (AVSD) was diagnosed, I added a few things to support cardiovascular and pulmonary function.

Below is a VERY brief description of the main properties I am using these remedies for- please not this does not even scratch the surface of their overarching uses and benefits.

Dose is generally 1-3 drops, TID- for the complexes, 5-10 drops TID.

**Fig**

Stimulate appetite, normalizes the gastric juices, stimulates WBC, prevents reflux/ GERD. Fig buds also assist in the digestion process due to its ficin content, an enzyme that is 20 times more powerful than that of papain and one of the very few vegetable enzymes not destroyed by HCL, regulates hyper- or hypochlorhydria.

**White Birch Flower Catkins**

High in brassinosteroid hormones help to regulates adrenals and thyroid glands (both hyper and hypo), supports and modulates entire endocrine system. Stimulate glutathione,
immunomodulatory for the immune system especially pro-inflammatory cytokines. Aids in growth and development.

**Arresto Prevento** (Elderberry, Echinacea and Yarrow)

I use this remedy to prevent colds and flus and also for the treatment of colds and flus…it is the herbal “Tamiflu equivalent”.

**Black Elder**-antiviral, immune adaptogen / stimulant, Diaphoretic, breaks down mucous in the chest and posterior pharynx nasal drip (PND). Sinusitis, nasal decongestion, bronchitis, asthma, laryngitis tonsillitis, suffocating croupy cough, dyspnea. Regulates alveolar macrophage. Immunomodulatory, broad spectrum antimicrobial

**Yarrow**- supports liver and GI systems, purifies the blood, decongestant, improves peripheral circulation, Essential hypertension,

**Crab Apple**

Helps with constipation, anti-aging/high antioxidant properties (especially catalase) lowers blood pressure and improves circulation and protects the heart. It is the polycrest plant for increasing catalase enzyme.

**Maize**

Contains 23 phytochemicals which are antisclerotic. Supports coronary insufficiency, cicatrisation of post-myocardial infarction, angina, hypertension, lowers cholesterol **Antiesthmatic**; supports chronic obstructive pulmonary disease (COPD), emphysema, gastric lipase for cystic fibrosis. Oleosin has proven to be very effective in these genetic diseases

**Rosemary**

Normalizes vagal response, improves circulation to the extremities, respiratory decompensation, liver support and detoxification agent, antioxidant...very strong neurological action...improves memory. Rosemary may prevent the breakdown of acetylcholine, a chemical that allows neurons within the brain to communicate with each other. Neuroprotective carnosic acid activates a novel signaling pathway that protects brain cells from free radical damage seen in neurodegenerative conditions like Parkinson's, Amyotrophic Lateral Sclerosis (ALS) diseases and Alzheimer's. Carnosic acid promotes the production of nerve growth factor. Cerebral artery ischemia/reperfusion.

**Caraway**

Colic/ gas, stimulates appetite, detoxifies lymphatic system, diuretic (NA and K sparing!) also lowers elevated cortisol level and anti-hypertensive. It is the polycrest microflora regulator of the gut and greatly reduce bloating and anti-flatulent

**Beech**

Help raise immunoglobulins protease inhibitor, helps with growth and development, Offset/ support proper gene expression, especially in Down syndrome.

**Post AVSD Diagnosis added**

**Ash**
For further adrenal support but was also the remedy to support “cushion defects” because of it’s action on connective tissues and collagen.

**Broncho Modulato**

Shortly after the AVSD diagnosis, my husband, daughter and I got sick with a bronchial infection. I started Broncho Modulato with Connor to help prevent the infection and to support pulmonary function. It contains the following herbs- Black Poplar, Elecampane, Hazel, Horse Chestnut, Nigella and Wayfaring Tree a bronchodilator equivalent to any inhaler.

- **Black Poplar**- anticoagulant, PND, COPD, improves circulation, facilitates collateral circulation, stimulate NO release,

- **Elecampane**- Detoxifies and strengthens the respiratory tract mucous membranes, stimulates the breathing muscles PND, COPD, dyspnea/SOB (shortness of breath) exacerbated by exertion, tachypnea (rapid breathing) which is often labored, stimulates digestive system, supports weak digestive organs, hypertension

- **Hazel**- Increases arterial blood gases (ABG), oxygen and respiration. Restores pulmonary elasticity, emphysema, pulmonary fibrosis, bronchitis and bronchiectasis. SOB.

- **Horse Chestnut**- Regulatory Bipolar action for hypertension and hypotension, venous decongestant. COPD, emphysema, pulmonary insufficiency, dilatation of the bronchus, a long standing asthma, shortness of breath.

- **Nigella**- Immunomodulatory Action: Anti-hypoxia, increases blood oxygen level and immune function, immunoglobulin, stimulates the production of the bone marrow and B cells of the immune system, purifies and unblocks the lymphatic system making it ideal for reducing lymphedema. Antihistamine, allergies, asthma, bronchitis, cough, cystic fibrosis, emphysema and COPD, pulmonary hypertension. Improves lung oxygenation Nigellone and Thymoquinone work in synergy to offer both antispasmodic and a bronchodilator and tracheal relaxant, anticholinergic properties which contribute to Nigella Sativa potency against respiratory ailments. Studies indicate a significant reduction in the activity of inducible nitric oxide synthase (iNOS) and a rise in surfactant protein D in lung tissue of different pulmonary aspiration models after Nigella Sativa therapy.

- **Wayfaring Tree**- Pulmonary Detoxifier, Asthma, Exercise Induced Asthma, Pulmonary neuro-vegetative regulatory action, Bronchospasm, Dyspnea, antioxidant and antiinflammatory for the heart. The Albuterol – Ventolin inhaler alternative.

**Post surgery main additions**

**Arnica**

For the relief of pain and antiinflammatory properties, improves wound healing cardio tonic, especially good for healing contused heart tissue, speeds postsurgical healing time.

**Dandelion**

Help detoxify entire digestive system, aids in constipation, aids liver in removal and recovery from use of drugs, has diuretic effects as potent as Lasix (furosemide), yet replenish K+
Added bramble, bilberry and black currants- for high antioxidant and anti-inflammatory content…these buds greatly improve healing and function of tissues post-surgery.

**Black Poplar**

Fir reducing post nasal drip (PND) for increased phlegm d/t intubation.

**2. Nutrivene-D (www.nutrivene.com)**

The Nutrivene-D Advanced Antioxidant Daily Supplement contains over 40 vitamins, minerals, and antioxidants including Zinc, Selenium, Coenzyme Q10, Alpha Lipoic Acid, Glutathione, Bioflavonoids, Vitamins A, C, and E. This product is GMO-free and gluten-free. For a nutrition profile of the Nutrivene-D Daily Supplement visit [www.nutrivene.com](http://www.nutrivene.com).

Some nutrients may aid in the metabolic disturbances in Down syndrome (1,2,3,4,5). These metabolic disturbances are thought to include the disruption of methylation pathways (SAM cycle), connective tissue issues which result in hypotonia, and the overexpression of the superoxide dismutase gene which may cause oxidative stress and accelerated aging. A study conducted on Nutrivene-D in children with Down syndrome noted a reduction of infections, improved growth, and improvements in laboratory parameters (Vitamins A, E, Selenium, etc.). Parents and therapists involved in the study reported considerable improvements in behavior, cooperation, and development of the children administered Nutrivene (6).


References are not clear Author names first

Nutrivene is designed to manipulate the over expressed genes and upregulate enzymes. It feeds neurotransmitters, among other things, to normalize the metabolism. As long as you are not addressing those active genes, Down Syndrome continues to destroy the child's brain and body. It is considered a neurodegenerative disease (or condition or syndrome, whatever you choose to call it.) It has been formulated to contain the nutrients in the exact amounts, with the exact cofactors and from exact sources.

**ADDED to protocol Post Surgery** (would have added pre surgery had a known more…)

**PQQ**- (MitoPQQ from Designs for Health)

Protects and repairs damaged mitochondria, scavenges superoxide and suppresses peroxynitrate. Very helpful in supporting, healing heart tissue. It also triggers NGF (nerve growth factor) in the hippocampus so new neurons are formed, reduces neuro-inflammation, halts cognitive decline, inhibits fibrillation of amyloid proteins

**3. DHA** (Nordic Naturals Infant DHA)

For cell membrane and neurological support (brain, eye), supports learning and language, anti-inflammatory properties

**4. Phosphatidyl Choline** (from Designs for Health)
Supportive nutrient for the brain, kidneys, muscles, testes and other organs, and is a building block for cell membrane phospholipids. Without the presence of this nutrient in the brain, we could not think, sleep or remember

5. doTERRA CPTG Essential Oils

Essential oils can be used aromatically, topically and some internally. They have widespread healing effects on the body.

“Connor's Blend”

Connor’s daily protocol is a combination of 2 oil blends- DDR prime, and Citrus Bliss, in Fractionated Coconut Oil, applied to the bottoms of the feet and the spine am and pm. I created this blend to help with oxidative stress, stimulate newer healthy cell turnover, induce apoptosis, increase glutathione, and help with overall emotional well-being.

During the day and at night we diffused OnGuard, Breathe, Arbor Vitae…various other oils too. When we went out in public, I applied On Guard to his feet. Breathe was applied to his chest daily to support pulmonary function.

For more information about each of the blends, please see [http://accesstheexpert.com/oil-education](http://accesstheexpert.com/oil-education)

While Connor was in ICU I resumed EO and Embryonic phytotherapy…you can request those notes from Children’s. 😊 I feel it was also a big factor in his short stay! 😊 [www.epsce.com](http://www.epsce.com)

For more information about research essential oils go to [www.aromaticscience.com](http://www.aromaticscience.com)

Also of part of Connor’s protocol was weekly chiropractic adjustments, to ensure proper nerve signaling from the brain and spinal cord to the viscera, daily inversion therapy, and Quantum Neurology treatments- a functional nervous system assessment tool…. where I stimulated the Vagus nerve to balance the PNS/SNS and support cardiopulmonary function, as well as LED therapy to the brainstem, heart and lungs to stimulate ATP production and decrease inflammation. [www.quantumneurology.com](http://www.quantumneurology.com)

If you made it all the way to the end of this- WAY TO GO! Please feel free to contact me if you’d like more information or to talk more about this approach. I will be doing various Down syndrome educational webinars and I frequently teach classes on using essential oils. Thank you so much for your interest!