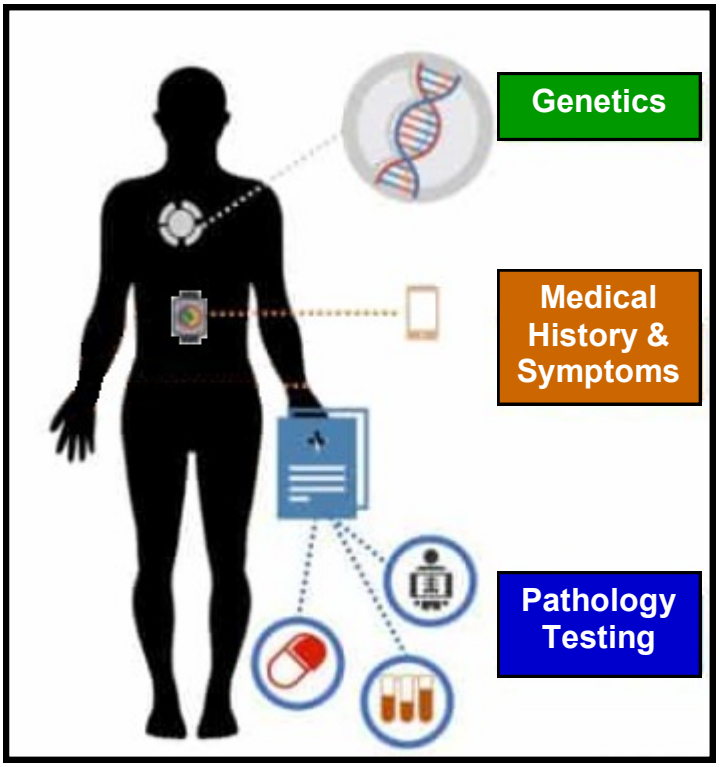
What are Biomedical Interventions?

The term "biomedical" is a general term that combines the words "biological" and "medical". My interpretation of biomedical medicine is the branch of medicine that deals with genetics, biochemistry and how all the different body systems interact in both health and disease.

Basically to help understand the underlying cause of a disease or disorder, and guide treatment and prevention. Biomedical interventions optimise the way the body functions, through nutrition, the complex chemical processes in the body, immune function, digestive function, detoxification, etc.

As on the outside we all look different, on the inside we are also all different genetically and biochemically. Identifying those unique differences, and what has gone wrong, is the goal of biomedical interventions.



To gain a clear picture of what may be causing an individuals underlying issues, requires a collection of data gathered from multiple sources, including:

- A persons genetic predisposition and possible gene - environment interactions
- A comprehensive medical and symptom history is obtained so that we can see which body systems may be involved and need to be investigated further, or supported through nutritional or other interventions
- Pathology testing, including routine pathology testing as well as more specific testing that may require more comprehensive tests to identify nutritional deficiencies, gastrointestinal dysfunction, immune deficiencies, neurotransmitter imbalances, etc

Autism Spectrum Disorder and Other Neurodevelopmental Disorders

Research shows that children with autism and other neurodevelopmental disorders, have high rates of co-occurring medical conditions, such as:

- Genetic disorders
- Dietary intolerances or allergies
- Nutritional deficiencies
- Gastrointestinal disorders & pathology
- Immune dysfunction
- Hormonal imbalances
- Neurotransmitter imbalances
- Poor detoxification
- Mitochondrial dysfunction
- Oxidative stress

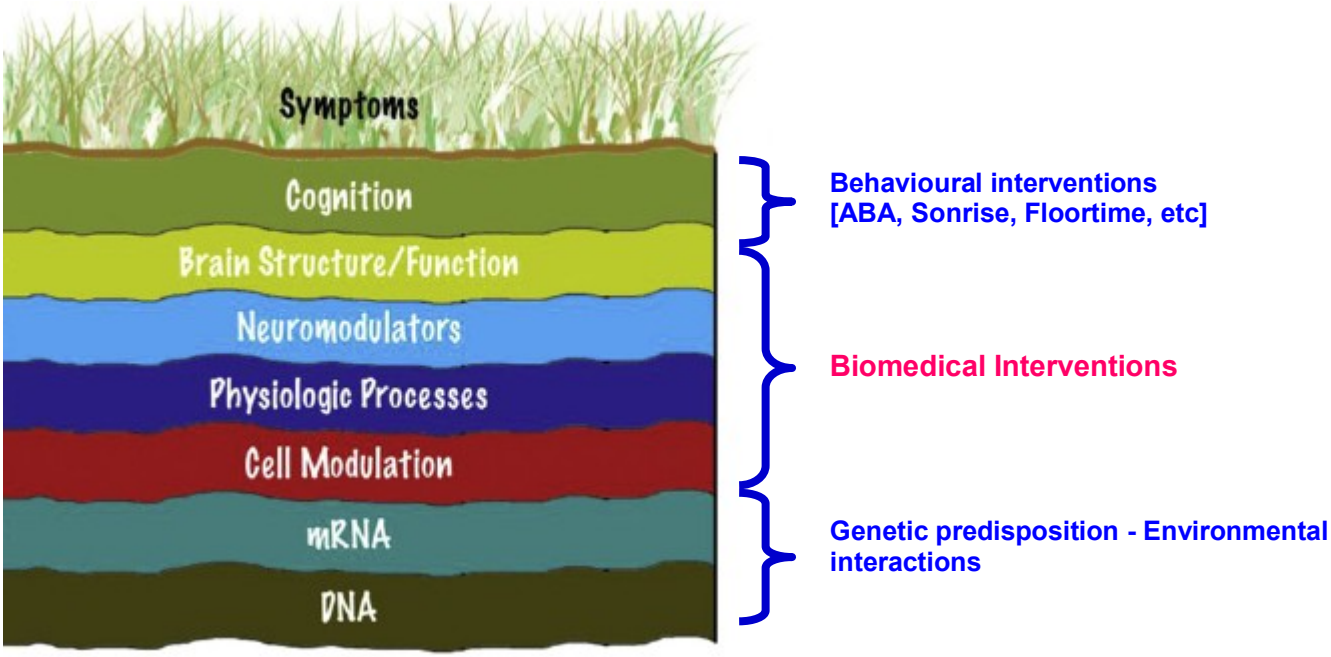
Changing the way we think about treating autism and neuro-developmental disorders

John Pietryka
Biomedical Naturopath
55 Marianne Way
MT WAVERLEY 3149
www.allnaturaladvantage.com.au
Phone: (03) 8802 7687
E-mail:pietryka@optusnet.com.au

All Natural Advantage

Helping Children Achieve Their Full Potential

Viewed schematically in the diagram below, the layers represent the underlying factors that interact to express the symptoms that we see in autism, and other neurodevelopmental disorders. The middle layers are the ones that biomedical interventions target.



In reality what does all this jargon mean for parents contemplating biomedical interventions for their child?

Many sites describe "recovery" or "cures" using biomedical interventions. This is NOT what biomedical interventions are about. Biomedical interventions address an individuals underlying weaknesses or cause/s of disease. In the process their body is able to heal and their symptoms improve.

As an example, a recent study used faecal transplants to heal chronic gastrointestinal issues in autistic children. The study participants achieved a 83% improvement in their gastrointestinal symptoms. The study also happened to measure the children's core autistic symptoms. At the beginning of the study 73% of children were assessed as severely autistic. At the end of the study only 17% were severely autistic. An excellent example of what can be achieved when you treat co-occurring medical conditions, and how we can improve overall outcomes.

Does this mean that all children improve to the same extent with a particular therapy? No, because all children are different, and have their own unique underlying issues that need to be biomedically treated. That said, all children make progress. At the very least you know that they are not suffering from underlying treatable conditions and are nutritionally replete, so that their body can heal with time.

Children are less likely to make meaningful progress in educational or behavioral programs, if they have underlying nutritional deficiencies or co-occurring medical issues. The brain is a chemical factory and there is a two-way communication with the rest of the body. If their brain or other body system is not functioning optimally, then learning will be difficult for that child.

Typically developing children may be able to continue to function, even with borderline nutritional status. However, research is showing that children with neurodevelopmental disorders are more vulnerable to such deficiencies, and require higher nutrient levels in order to achieve their optimal learning potential.

In summary, biomedical intervention goals are:

- To identify and treat the full range of underlying medical conditions and deficiencies to achieve optimal health rather than just functional health
- To maximize both safety and efficacy - this requires careful consideration of the risks and potential benefits associated with any treatment