



President  
David K Martin

Vice-President  
Andrew M Ellis

Second Vice-President  
Michael J Gillespie

Chair of Education  
and Training  
Omar Khorshid

Chair of Professional  
Conduct and Standards  
Colin Whitewood

Scientific Secretary  
Ian A Harris

State Chair Director  
Marinis Pirpiris

General Director  
and Treasurer  
Maurizio Damiani

General Director  
Christopher N Morrey

AORA President  
Christopher Conyard

Chief Executive Officer  
and Company Secretary  
Adrian R Cosenza



21 June 2019

Professor Euan Wallace  
Chief Executive Officer  
Safer Care Victoria

By email: [SCVreview@safecare.vic.gov.au](mailto:SCVreview@safecare.vic.gov.au)

Dear Professor Wallace,

### **Review of chiropractic spinal care for children under 12 years**

The Australian Orthopaedic Association (AOA) welcomes the opportunity to submit a response regarding Safer Care Victoria's review of chiropractic spinal care for children under 12 years.

The Australian Orthopaedic Association is the peak professional body for orthopaedic surgeons in Australia. AOA provides high quality specialist education, training and continuing professional development. AOA is committed to ensuring the highest possible standard of orthopaedic care and is the leading authority in the provision of orthopaedic information to the community.

The Spine Society of Australia (SSA) is a subspecialty society of the AOA and its members are focussed on providing high quality care to spinal patients of all ages. Both AOA and SSA support the practice of evidence-based medical interventions.

AOA and SSA provide the following comments in regards to the review.

**1. Name of organisation**

Australian Orthopaedic Association  
Spine Society of Australia

**2. Please outline your membership or accreditation criteria (if applicable)**

Specialist Orthopaedic Surgeon – or trainee orthopaedic surgeon

**3. Does your organisation represent practitioners who provide spinal care for children under 12 years of age?**

Yes

**4. Please outline your organisation's regulations, guidelines or training relevant to the provision of spinal care for children under 12 (if applicable)**

**5. In the view of your organisation, what are the benefits relating to the provision of spinal care to children under 12?**



AOA

AUSTRALIAN  
ORTHOPAEDIC  
ASSOCIATION



**6. Has your organisation been made aware of adverse effects relating to the provision of spinal care to children under 12?**

**Please attach any additional information that you would like to provide to the panel.**

**Defining Chiropractic:**

Chiropractic needs to be carefully defined by the review. Many chiropractors have expanded their practices to include all manner of wellness services including nutritional advice, fitness training, weight loss, motivational lectures and the like. Chiropractic techniques also vary widely, with chiropractors adopting different chiropractic schools of thought. This again is a reflection of the lack of basis for chiropractic treatments, which will be discussed further on. If the “subluxation” was an actual entity, then we would all be able to study it, quantify it, and document it objectively. As it is merely an invention, as is the life-force referred to as the “innate”, it cannot be subject to these sorts of objective analyses. Chiropractors, therefore, are free to offer whatever modalities they wish; whatever feels intuitively best for them. They may concentrate on drop tables, “activator methods”, “Gonstead” or the numerous other techniques available. Chiropractic as well is more than “spinal manipulative therapy”, which is used by osteopaths, physiotherapists and medical practitioners.

The panel will need to define chiropractic therefore, according to the registration of the practitioner. For the purposes of administration of any recommendations of the panel, the findings will need to be applied to all registered chiropractors, regardless of the nature and “mix” of their practice.

**History:**

The hallmark characteristic of modern medicine is its basis in science and its application of evidence-based practice. The public demands this, the government demands this, and the vast majority of medical practitioners demand it of themselves. Over many hundreds of years we have continued to gather more knowledge about the human body and its diseases, tested and retested theories and treatments, and gradually refined our practice to be widely reproducible and safe. We continue to do so with the many thousands of trials published and studies performed standing testament to our dedication to constant improvement. As medical practitioners, we are duty-bound to be suspicious of any practice that is either not effective (and hence not cost-effective) or unsafe. It is from this evidence and science-based viewpoint that we make this submission to the review, as critical thinkers experienced in collating and analysing evidence.

The practice of chiropractic is an invention of a magnetic healer called Daniel David “DD” Palmer. In 1896, he claimed that he cured a man’s deafness by treating him with a spinal manipulation. Despite over 100 years of experience, no chiropractor has been able to repeat that dramatic demonstration. Just as Wilbur and Orville Wright invented the first powered airplane, they used the same principles that are used today for all modern planes. Indeed anyone can make a



replica of the Wright brothers' plane and it will still fly. So too should chiropractic be able to reproduce its founding father's miracle in great numbers. This fact alone should make us suspicious as to its basis in fact. If chiropractic was based in science and had an evidence base, then its first defining treatment should be a treatment that is repeatable and reproducible, time and time again.

### **Characteristics of Chiropractic – the subluxation:**

DD Palmer's son, Bartlett Joshua "BJ" Palmer, bought his father's practice and was possibly responsible for its rise in popularity. They attributed all disease to improper neuronal inputs to organs, caused by the "subluxation". As BJ wrote in 1909;

"Chiropractors have found in every disease that is supposed to be contagious, a cause in the spine. In the spinal column we will find a subluxation that corresponds to every type of disease. If we had one hundred cases of small-pox, I can prove to you where, in one, you will find a subluxation and you will find the same conditions in the other ninety-nine. I adjust one and return his functions to normal... There is no contagious disease... There is no infection... There is a cause internal to man that makes of his body in a certain spot, more or less a breeding ground. It is a place where they can multiply, propagate, and then because they become so many they are classed as a cause."<sup>1</sup>

The above quote is important as it sets the stage for many future aspects of chiropractic, and also for its treatment of children. The crucial term "subluxation", otherwise known as the "chiropractic vertebral subluxation complex", is a different concept to a medically defined subluxation. It remains an elusive and difficult concept for even many chiropractors to precisely define and agree on, but remains biological implausible.

In 2001 the Assembly of the World Federation of Chiropractic stated that "a subluxation is a complex of functional and/or structural and/or pathological articular changes that compromise neural integrity and may influence organ system function and general health."<sup>2</sup>

On the other hand, the General Chiropractic Council in the United Kingdom describes the subluxation as "not supported by any clinical research evidence that would allow claims to be made that it is the cause of disease".<sup>3</sup> Meanwhile in 2015 seven chiropractic training programmes agreed that "The teaching of vertebral subluxation complex as a vitalistic construct that claims that it is the cause of disease is unsupported by evidence. Its inclusion in a modern chiropractic curriculum in anything other than an historical context is therefore inappropriate and unnecessary."

If there remains such disparate views on the very basis of chiropractic, how can we then take their practice as legitimate? Whilst two medical practitioners may

---

<sup>1</sup> The Philosophy of Chiropractic, V. Davenport, IA: Palmer School of Chiropractic; 1909

<sup>2</sup> <https://www.wfc.org/website/docs/992003142614.PDF>

<sup>3</sup> <https://www.gcc-uk.org/UserFiles/Docs/Registrations/Information%20newly%20registered%20chiropractors.pdf>



disagree on the best treatment for a disease, they will almost always agree on the nature of the human body and the disease they are treating, according to the best available evidence. If chiropractors cannot even agree on DD Palmer's subluxation, then how is it they can perform the "adjustments" on the "innate" that naturally flow from the subluxation concept?

### **Characteristics of Chiropractic – germ theory denial / anti-vaccination:**

Whilst there are many different colleges teaching chiropractic, the panel is again referred to the quote from BJ Palmer above. It reflects the concept that chiropractic holds that "germs" cause disease. They claim that bacteria and viruses only appear when there is a subluxation, and hence there should be no need for vaccinations. Many chiropractors have publicly stated that with a normally functioning nervous system free of subluxations, a person doesn't need immunisations. This is still a viewpoint that is held today.<sup>45</sup> In 2011, two thirds of the anti-vaccination AVN professional members were chiropractors.<sup>6</sup> Although eight years later they are not permitted to air their obfuscation in public, there is no evidence that their opinions have changed. Although we can legislate public behaviour, it's impossible to educate and change these deep seated beliefs in the same manner, and some will always resist any influence.<sup>7</sup>

It is difficult to quantify the risks that the anti-vaccination stance of chiropractors has on the health of children and families. Even if they are sharing their misinformation behind closed doors, they will still be exerting influence on particularly young parents who may not know any better. The risks that a parent may not immunise their children and then suffer a catastrophic outcome cannot be underestimated, and this reason alone is one which should cause the panel concern enough to prevent chiropractors from seeing children.

### **Popularity:**

In submissions to this review, much will be made of the numbers of visits made by parents and their children per year to chiropractors. The infographic<sup>8</sup> made by the Australian Chiropractors Association is a good example. They may lead the panel to conclude that this popularity somehow validates their practice. If the panel wishes to examine why they are so popular as claimed, then many reasons could be put forward, few of which relate to evidence of safety or efficacy. If one studies the infographic carefully, then it is clear that apart from a reassurance that "There is very little evidence of harm associated with chiropractic care of paediatric patients", there is also no claims of efficacy.

This popularity only demonstrates however that chiropractic usage is patient-lead, and it has little bearing on efficacy or safety. Whilst the attractiveness and popularity of chiropractic may be discussed, the focus of this review needs to be based solely on evidence. It is a modern myth that popularity, particularly

<sup>4</sup> <https://theconversation.com/having-a-crack-what-do-chiropractors-know-about-vaccinations-2943>

<sup>5</sup> <https://www.smh.com.au/healthcare/chiropractors-promoting-antivaccination-views-despite-crackdown-20151223-gltwpl.html>

<sup>6</sup> <https://www.dailytelegraph.com.au/news/nsw/a-third-of-the-australian-vaccination-skeptics-networks-members-are-medical-professionals/news-story/8965260156547a6433a63a9a8acee777>

<sup>7</sup> <https://www.theage.com.au/national/victoria/chiropractors-furious-at-melbourne-clinic-screening-of-antivaccination-film-vaxxed-20161216-gtcn8w.html>

<sup>8</sup> [https://www.chiro.org.au/wp-content/uploads/2019/05/ACA\\_Infographic\\_2019.pdf](https://www.chiro.org.au/wp-content/uploads/2019/05/ACA_Infographic_2019.pdf)



regarding social media, equates to legitimacy. Our children deserve better than this level of evidence, and the panel is asked to ignore claims of this nature.

### **The “illness” model of chiropractic treatments:**

Chiropractors will often lead parents to believe that somehow their child is “ill”, or could perform better with an adjustment. With newborns, it is often said that the baby has undergone a traumatic birth and that its spine will need “adjustment”. This is, of course, fallacious. There is absolutely no evidence that a newborn baby’s spine is anything but perfect except for instances where there is obvious pathology, such as a myelomeningocele. Since the chiropractic subluxation is invisible to the eye and to X-ray, and only palpable with the trained chiropractors fingers, the parent must trust the chiropractor to interpret his or her findings, and to adjust appropriately.

This leads to chiropractors offering maintenance treatments, for the life of the child. A parent who believes in their therapy will likewise not want to stop the treatments else some difficulty strikes their child down. It has been observed that many chiropractors will claim that their treatments can cure known self-limiting problems, when it was simply a coincidence.<sup>9</sup> It isn’t difficult for chiropractors and parents then to identify potentially “subluxating” injuries in the life of a completely normal child. From birth to adulthood there are so many trips and falls, the power of suggestion, and the caring nature of parents, will ensure that their children return for an “adjustment”.

### **Chiropractic Accuracy:**

Chiropractors themselves are at risk of perceiving abnormalities when none is there, and it has been shown repeatedly that even for the same normal or abnormal patient, chiropractors do not generally agree on their findings<sup>1011</sup>. The use of assistance devices in locating the subluxed level is also not supported by evidence<sup>12</sup>.

This questions again the legitimacy of chiropractic techniques as a whole. If the “subluxation” is so important, shouldn’t chiropractors be able to consistently identify it? Further, why should chiropractors be the only people who can detect the “subluxation”? Whether they went to University or training in a College, the uniting feature of chiropractors is their perceived ability to adjust the “subluxation”. If this “subluxation” was a legitimate condition, it should be able to be studied, observed, quantified, and tested objectively by anyone. What we observe, however, is that chiropractors, indoctrinated by their education, are convinced that only they have the ability to detect and adjust these “subluxations”. This alone strongly suggests that the “subluxation” does not correspond to a scientifically valid concept.

<sup>9</sup> <http://www.walkervillechiropractic.com.au/media2.aspx?section=ARTICLES&id=39&title=Bedwetting>

<sup>10</sup> Hestbaek L, Leboeuf-Yde C. Are chiropractic tests for the lumbo-pelvic spine reliable and valid? A systematic critical literature review. *J Manipulative Physiol Ther.* 2000 May;23(4):258-75. Review. PubMed PMID: 10820299.

<sup>11</sup> Russell, David & Cooperstein, Robert & Young, Morgan & Sherson, Matthew & Haavik, Heidi & Holt, Kelly. (2018). Interexaminer reliability of a multidimensional battery of tests used to assess for vertebral subluxations. *Chiropractic Journal of Australia.* 46. 100-117.

<sup>12</sup> Triano JJ, et al. Review of methods used by chiropractors to determine the site for applying manipulation. *Chiropr Man Therap.* 2013 Oct 21;21(1):36. doi: 10.1186/2045-709X-21-36.



### Chiropractic Appreciation of Evidence:

Chiropractors themselves are a product of a system that has enabled them to wrongly assume that what they are doing is legitimate. They go to University, they are registered under AHPRA, and they carry the title “Doctor”. What the panel will read and hear is undoubtedly many examples of chiropractic evidence for their profession to treat children. Sadly, their appreciation of the use of evidence is also incredibly poor. It is apparent they either never learnt, or choose to ignore, the science of epidemiology. Countless case reports and observational papers exist of chiropractic treatments related to children, and they use these case reports as a justification to their treatments. This paper on epilepsy<sup>13</sup> for example concludes that “chiropractic care may represent a nonpharmaceutical health care approach for pediatric epileptic patients”, based on only 17 case reports. It is simply a conclusion that is not supported by the evidence presented.

This paper<sup>14</sup> which described itself as a systematic review of paediatric chiropractic therapies, included 18 papers that were merely observational without a control group, and would not be regarded as sufficient quality to be included in a systematic review of any medical treatment modality. Likewise, three of the RCT’s for the same condition were from the same research group and this itself is poor having not had their results reproduced independently. Although the conclusion of the study was that chiropractic had a role to play in three conditions, the systematic review itself is fundamentally flawed.

Our home-grown Australian Spinal Research Foundation (ASRF) is also remarkably lacking when it comes to an appreciation of epidemiology and hence, evidence. For its blog post<sup>15</sup> on “Paediatric Chiropractic Care: Part 1 –The State of Evidence”, one paper referred to was a set of case reports of adverse outcomes with much of the blog post explaining how safe chiropractic was to be promoted. The rest of the blog was a discussion of references to surveys and consensus statements about chiropractic techniques to use of children. Part 2<sup>16</sup> was a discussion on how you should be gentler when manipulating younger children when compared to adults. One safety concern was raised, but was quickly dismissed by reminding the reader that “20,000 children received chiropractic manipulation without serious adverse reactions”.

As recently as 2016, the ASRF posted on their website<sup>17</sup> an article called “Advancing The Cause: Chiropractic Care And Kids”. In it they claim that chiropractic is effective in treating breathing problems, nursing difficulties, sleep disturbances, allergic reactions and chronic infections. The reference is a website link that is either behind a paywall or has been taken down. The claims are therefore meaningless, yet are published on the peak Australian chiropractic

<sup>13</sup> Pistolesse RA. Epilepsy and seizure disorders: a review of literature relative to chiropractic care of children. *J Manipulative Physiol Ther.* 2001 Mar-Apr;24(3):199-205. Review. PubMed PMID: 11313616.

<sup>14</sup> Parnell Prevost C, Gleberzon B, Carleo B, Anderson K, Cark M, Pohlman KA. Manual therapy for the pediatric population: a systematic review. *BMC Complement Altern Med.* 2019 Mar 13;19(1):60. doi: 10.1186/s12906-019-2447-2. PubMed PMID: 30866915; PubMed Central PMCID: PMC6417069.

<sup>15</sup> <https://spinalresearch.com.au/paediatric-chiropractic-care-part-1/>

<sup>16</sup> <https://spinalresearch.com.au/paediatric-chiropractic-part-2-force-measures-for-children-and-infants/>

<sup>17</sup> <https://spinalresearch.com.au/advancing-the-cause-chiropractic-care-and-kids/>



AOA

AUSTRALIAN  
ORTHOPAEDIC  
ASSOCIATION



research website as proven. It should come as no surprise therefore that chiropractors use this website and make the same claims on their own practice websites<sup>18</sup>.

### **Evidence Base for Chiropractic:**

The conditions that chiropractors claim that can treat in babies and children are numerous. An example is given here<sup>19</sup> which not only carefully phrases its claim that conditions “that we have had great success which include [sic.]” but also appears to breach the advertising code for offering free treatments for babies under 3 years of age.

Given the biologically implausible nature of the “subluxation”, chiropractic requires a very high standard of evidence to be taken seriously by observers. Unfortunately, there is very little evidence that chiropractic can treat any childhood illness. Cochrane is a repository of reviews of a sufficiently high standard that, if they found evidence for efficacy, it would be positively reported. Chiropractic has not been found to be effective for asthma<sup>20</sup>, bedwetting<sup>21</sup>, and colic<sup>22</sup>. These conclusions are echoed in another systematic review<sup>23</sup> where they concluded that “There are [sic] very little data in the literature to support or refute the use of SMT interventions in pediatric patients.”

Similarly, in adults, chiropractic has been found to be only slightly more effective at treating acute, but not chronic, back pain<sup>24</sup> when compared to analgesia and gentle mobilisation.

Many chiropractors will reply to this criticism and claim that if only there was more research, more evidence would exist. This is simply “counting chickens before they hatch” and is a fallacy that the panel should reject outright.

### **Risks:**

It has already been discussed that the risks of a parent receiving poor information about immunisation are high when they take their child to a chiropractor. It is also not effective as a treatment for childhood illnesses, and so is therefore a cost burden to the family that is not justified. Likewise, although side effects are common, and usually self-limiting, there should be a zero tolerance for any complication, if the efficacy is nil.

### **Summary:**

Despite over 100 years of chiropractic and many millions of dollars spent, there remains a dearth of evidence for its usefulness to treat children conditions. This

<sup>18</sup> <http://www.chirocareforkids.com.au/care-for-all-ages/children/>

<sup>19</sup> <https://livewellchiro.com.au/kidsunder3free/>

<sup>20</sup> [https://www.cochrane.org/CD001002/AIRWAYS\\_manual-therapy-for-asthma](https://www.cochrane.org/CD001002/AIRWAYS_manual-therapy-for-asthma)

<sup>21</sup> [https://www.cochrane.org/CD005230/INCONT\\_complementary-treatments-such-as-hypnosis-psychotherapy-acupuncture-chiropractic-and-medicinal-herbs-for-bedwetting-in-children](https://www.cochrane.org/CD005230/INCONT_complementary-treatments-such-as-hypnosis-psychotherapy-acupuncture-chiropractic-and-medicinal-herbs-for-bedwetting-in-children)

<sup>22</sup> [https://www.cochrane.org/CD004796/BEHAV\\_manipulative-therapies-for-infantile-colic](https://www.cochrane.org/CD004796/BEHAV_manipulative-therapies-for-infantile-colic)

<sup>23</sup> Vaughn DW, Kenyon LK, Sobeck CM, Smith RE. Spinal manual therapy interventions for pediatric patients: a systematic review. *J Man Manip Ther.* 2012;20(3):153–159. doi:10.1179/2042618612Y.0000000007

<sup>24</sup> [https://www.cochrane.org/CD008880/BACK\\_spinal-manipulative-therapy-for-acute-low-back-pain](https://www.cochrane.org/CD008880/BACK_spinal-manipulative-therapy-for-acute-low-back-pain)



semi-spiritual practice should now be subject to a rigorous narrowing of its scope of practice. Consideration should be given to restrict the training of chiropractors given this lack of evidence, and hence lack of actual need. Resources saved could then be put towards more efficacious treatments. The government, via this review, has the opportunity to place a microscope up to chiropractic and to appreciate its fundamental flaws.

In a world of limited health resources, an oversupply of chiropractors, and the emergence of wellness as a seemingly valid health condition, it is time that the same standards of practice are applied to chiropractors as to the rest of the health professions, not just for the treatment of children but for the entire population.

AOA and SSA do not support the use of chiropractic treatments in children under 12.

Thank you for the opportunity to provide a submission. AOA and SSA would be happy to discuss any aspect of this submission. Please contact [kathy.hill@aoa.org.au](mailto:kathy.hill@aoa.org.au) if you wish to do so.

Yours sincerely,

Alison Taylor  
**Chair, AOA Victorian Branch**

Michael Johnson  
**President SSA**

David Martin  
**President**