



**chirosacademy**

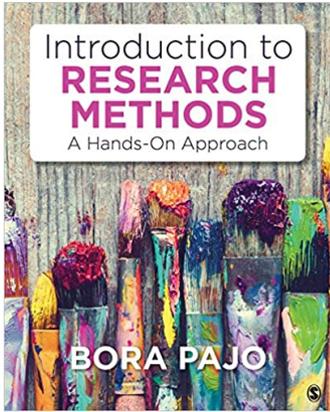
RESEARCH METHODS LEVEL 2

# 5 Gathering Scientific Evidence for a Report of Findings



# Class Outline

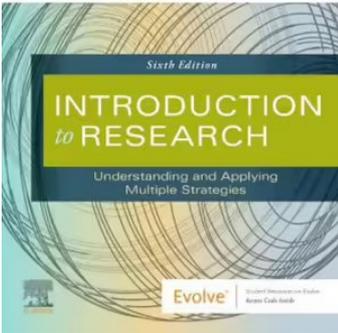
- Gathering Scientific Evidence for a report of findings
- Patient-focussed, evidence-based chiropractic care
- What research evidence do I need to gather?
- The PICO model (to help your search)
- How or where you find this relevant scientific evidence
- What actions are supported according to what evidence exists



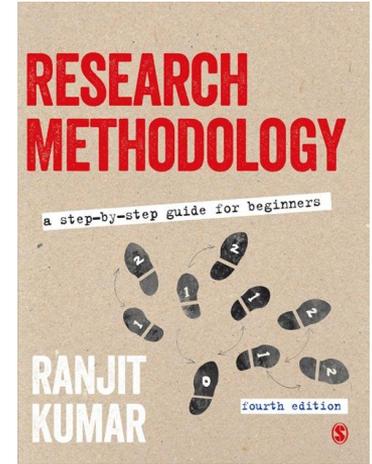
# Book References to Support Power Points

Pajo, B. (2017). *Introduction to research methods: a hands-on approach*. Sage publications.

DePoy, E., & Gitlin, L. N. (2019). *Introduction to research E-book: understanding and applying multiple strategies*. Elsevier Health Sciences.



Kumar R. *Research Methodology: A Step-by-Step Guide for Beginners*. 2010. 3rd Ed. SAGE Publications Ltd. Ch 14 Considering Ethical Issues in Data Collection

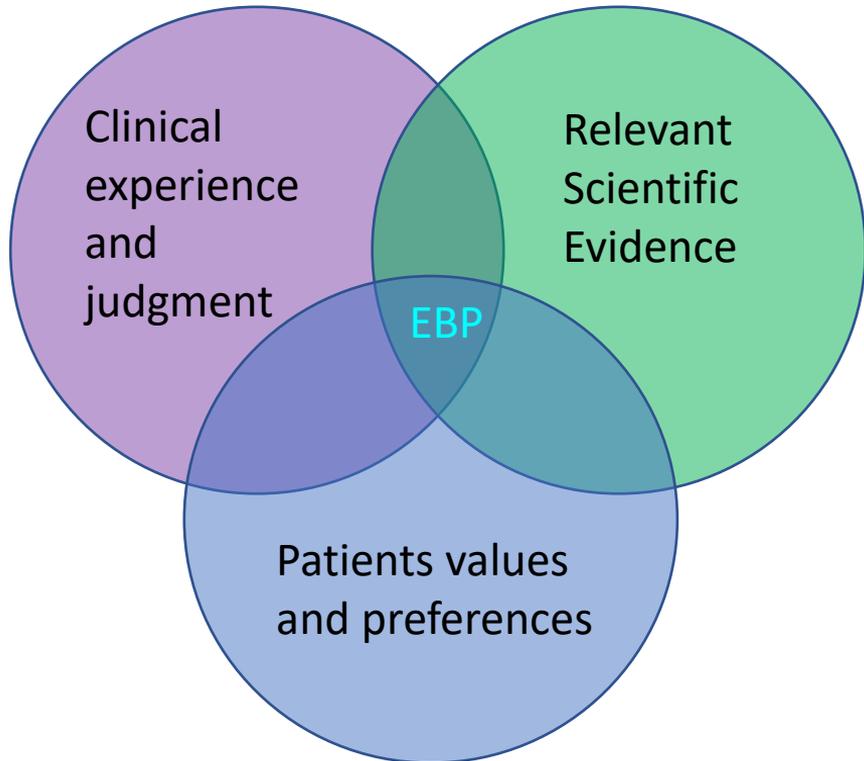


# Key Publications for this Class

- Sackett DL, Rosenberg WM, Gray JM, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. In: British Medical Journal Publishing Group; 1996.
- Eriksen, Mette Brandt, and Tove Faber Frandsen. "The impact of patient, intervention, comparison, outcome (PICO) as a search strategy tool on literature search quality: a systematic review." *Journal of the Medical Library Association: JMLA* 106, no. 4 (2018): 420.
- Leonardo, R. "PICO: Model for clinical questions." *Evid Based Med Pract* 3, no. 115 (2018): 2.
- Google Scholar; <https://scholar.google.com/>
- Cochrane Library; <https://www.cochranelibrary.com/>
- PubMed; <https://pubmed.ncbi.nlm.nih.gov/>
- Index to Chiropractic Literature; <https://www.chiroindex.org/>
- The practice of evidence-based physiotherapy (PEDro); <https://pedro.org.au/>
- SPINE IQ; <https://spineiq.org/>
- ChiroUp; <https://chiroup.com/>
- ChiroAcademy; <https://chirosacademy.com/>
- ChiroHub; <https://chiroshub.com/>

# Patient-Focused, Evidence-Based Practice

Dr David Sackett - the father of evidence-based medicine



## WHAT

1. What the condition is
2. How your care works
3. The efficacy & safety of chiropractic care
4. The efficacy & safety of alternative care options

Basic Science

Clinical Science

# Key Steps involved in sharing relevant science

## WHAT

1. What the condition is
  2. How your care works
  3. The efficacy & safety of chiropractic care
  4. The efficacy & safety of alternative care options
- Basic Science
- Clinical Science

## HOW

1. Search the literature for ALL research on each topic
2. Critically evaluate each study
3. Summarise the findings of ALL high-quality, low-bias studies
4. Translate into lay language the key take home messages

# Relevant Scientific Evidence Topic

- How do you know what the topic is?
- Ask the patient their key concerns, their chief complaint, the reason(s) they are there to see you



# Next Steps – Gathering the Information

- You know what the topic is (your patient told you!)

1. Search the literature for ALL research on each topic
2. Critically evaluate each study
3. Summarise the findings of ALL high-quality, low-bias studies
4. Translate into lay language the key take home messages

# The PICO Model

The PICO process is a technique used in evidence-based practice to frame and answer a clinical question. It helps identify the clinically relevant evidence in the literature.

<b>P</b>	Patient, Population, or Problem	How would I describe a group of patients similar to mine?
<b>I</b>	Intervention, Prognostic Factor, or Exposure	Which main intervention, prognostic factor, or exposure am I considering?
<b>C</b>	Comparison or Intervention (if appropriate)	What is the main alternative to compare with the intervention?
<b>O</b>	Outcome you would like to measure or achieve	What can I hope to accomplish, measure, improve, or affect?
	What <b>T</b> ype of question are you asking?	Diagnosis, Etiology/Harm, Therapy, Prognosis, Prevention
	Type of <b>S</b> tudy you want to find	What would be the best study design/methodology?

# The PICO Model

Example: Is adherence to the Mediterranean Diet associated with reduced risk of heart attack?

<b>Patient/Population</b>	<b>Intervention</b>	<b>Comparison</b>	<b>Outcomes</b>
<ul style="list-style-type: none"><li>•Adult</li><li>•History of heart disease</li></ul>	<ul style="list-style-type: none"><li>•Mediterranean diet</li></ul>	<ul style="list-style-type: none"><li>•Typical diet</li><li>•No comparison</li></ul>	<ul style="list-style-type: none"><li>•Reduction in heart attacks</li></ul>

# Example Tom and Mary



# The PICO Model

Example: Tom has bedwetting problems

Patient/Population	Intervention	Comparison	Outcomes
<ul style="list-style-type: none"><li>•Children</li><li>•History of enuresis /bedwetting</li></ul>	<ul style="list-style-type: none"><li>•Chiropractic care</li><li>•Other interventions?</li></ul>	<ul style="list-style-type: none"><li>•Chiropractic</li><li>•Behavioural therapy</li><li>•Alarm therapy</li><li>•Medication (tricyclics or desmopressin)</li><li>•Other CAM options</li></ul>	<ul style="list-style-type: none"><li>•Reduction in bed wetting</li></ul>

US\$ 19/class



- All course materials on ChirosAcademy contain the absolute latest scientific studies, summaries and critiqued and translated into the language of a practicing chiropractor.
- All course materials are referenced with reputable scientific publications, and they are discussed from the chiropractic perspective.
- Basic Science, Clinical Science, Neuroscience, Research Methodology, Statistics, and more.

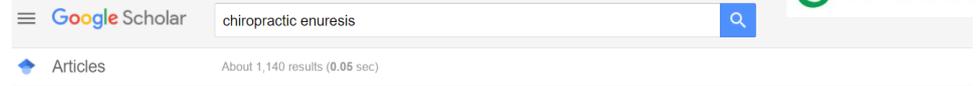
# Chiros Hub

- A resource library designed to help Chiropractors educate their patients about the science of chiropractic.
- Chiroshub contains whiteboard animations and written summaries on a range of topics, fully referenced, and in lay language to help share this relevant scientific information appropriately and easily with your patients.
- Is created by a team of chiropractors, scientists and digital media specialists
- Over 50 whiteboard animations on various clinical topics
- Also written summaries (pamphlets) and social media content
- New content added every month



# Google Scholar Searching

- Links to open access articles



Google Scholar | Search: chiropractic enuresis | About 1,140 results (0.05 sec)

Articles

Any time  
 Since 2021  
 Since 2020  
 Since 2017  
 Custom range...

Sort by relevance  
 Sort by date

Any type  
 include patents  
 include citations

Review articles  
 Create alert

**Chiropractic management of primary nocturnal enuresis.**  
 WR Reed, S Beavers, SK Reddy... - Journal of manipulative and ... 1994 - europepmc.org  
 OBJECTIVE: To evaluate **chiropractic** management of primary nocturnal **enuresis** in children. DESIGN: A controlled clinical trial for 10 wk preceded by and followed by a 2-wk nontreatment period. SETTING: **Chiropractic** clinic of the Palmer Institute of Graduate ...  
 ☆ ⓘ Cited by 139 Related articles All 3 versions ⓘ

**Chiropractic care of children with nocturnal enuresis: a prospective outcome study.**  
 C Leboeuf, P Brown, A Herman... - ... of manipulative and ... 1991 - europepmc.org  
 Functional nocturnal **enuresis** is a common problem which causes a great deal of stress to the suffering children and their families. Some **chiropractors** advocate **chiropractic** care as a mode of therapy for this complaint. One hundred and seventy-one **enuretic** children, aged 4 ...  
 ☆ ⓘ Cited by 64 Related articles All 2 versions ⓘ

**Chiropractic management of enuresis: time-series descriptive design.**  
 HA Gemmell, BH Jacobson - Journal of manipulative and ... 1989 - europepmc.org  
 Researchers have indicated that single-subject experimental designs may be of value in **chiropractic** clinical practice, allowing for the development of a scientific data base. The purpose of this paper was to employ a single-case time-series descriptive design in a ...  
 ☆ ⓘ Cited by 31 Related articles All 2 versions ⓘ

**Chiropractic treatment for primary nocturnal enuresis: a case series of 33 consecutive patients**  
 M Van Poecke, C Cunliffe - Journal of manipulative and physiological ... 2009 - Elsevier  
 Objective: The purpose of this study was to evaluate the effect of a specific type of **chiropractic** treatment on the wet night frequency of patients between the ages of 3 and 18 years who were treated for primary nocturnal **enuresis** (PNE) in the **chiropractic** setting ...  
 ☆ ⓘ Cited by 24 Related articles All 8 versions ⓘ

**Nocturnal enuresis: treatment implications for the chiropractor.**  
 BG Kreibitz, PD Aker - Journal of Manipulative and physiological ... 2004 - europepmc.org  
 OBJECTIVE: A comprehensive review of the literature concerning the etiology, diagnosis, and the natural history of primary nocturnal **enuresis** is presented. Contemporary treatment options are discussed in light of the documented annual remission rate of this disorder ...  
 ☆ ⓘ Cited by 25 Related articles All 2 versions ⓘ

**Complementary and miscellaneous interventions for nocturnal enuresis in children**  
 CMA Glazener, JHC Evans... - Cochrane Database of Systematic Reviews ... 2005 - cochranelibrary.com  
 ... **Chiropractic** "adjustment" is used to promote normal sensory function and correct structural deviations. ... **Chiropractors** theorize that some neurological problems relating to bedwetting may be due to a spinal ... diet has also been suggested to be helpful in childhood nocturnal **enuresis** ...  
 ☆ ⓘ Cited by 126 Related articles All 5 versions ⓘ

**Functional nocturnal enuresis.**  
 PR Blomrath - Journal of Manipulative and physiological ... 1994 - europepmc.org  
 ... Nocturnal **enuresis**: treatment implications for the **chiropractor** ... J Manipulative Physiol Ther. 17(7):465-473, 01 Sep 1994. Cited by: 5 articles | PMID: 7989880. Review.  
**Chiropractic management of primary nocturnal enuresis** ...  
 ☆ ⓘ Cited by 29 Related articles All 2 versions ⓘ

[HTML] cochranelibrary.com Full View

[PDF] koreascience.or.kr



Google Scholar

Articles Case law

Stand on the shoulders of giants

# Cochrane Library database

- <https://www.cochranelibrary.com/>
- Considered the “Gold standard” of systematic reviews.
- A collection of databases that contain different types of high-quality, independent evidence to inform healthcare decision-making.
- The Cochrane Library contains several key sections:
  - Cochrane Database of Systematic Reviews
  - Cochrane Central Register of Controlled Trials (CENTRAL)
  - Cochrane Clinical Answers



Trusted evidence.  
Informed decisions.  
Better health.

Open menu 

# Translating Evidence to Action

Levels of Evidence	Actions Supported
High and Moderate quality POSITIVE evidence	<ul style="list-style-type: none"><li>• Supports public favourable claims regarding effectiveness</li><li>• Advise patients that this is an effective treatment choice</li></ul>
Inconclusive, but favourable evidence	<ul style="list-style-type: none"><li>• Does not support any public claims regarding effectiveness</li><li>• Recommends effective alternative if available</li><li>• Advise patients that this is a treatment option in the absence of an effective alternative</li></ul>
Inconclusive, and unclear direction of evidence	<ul style="list-style-type: none"><li>• Recommend effective alternative if available</li><li>• Advise patients that the effectiveness of this treatment option has not been established</li></ul>
Inconclusive, but non-favourable evidence	<ul style="list-style-type: none"><li>• Advise patients that this treatment option is unlikely to be effective</li><li>• Recommend effective alternative if available</li></ul>
High and Moderate quality NEGATIVE evidence	<ul style="list-style-type: none"><li>• Advise patients AGAINST this as a treatment option</li><li>• Recommend effective alternative if available</li></ul>

# Other Online Search Options Available to You

---

- If you are a student, check with your Institutions Library. They usually run courses on how to search the literature.
- Some examples:
  - Index to Chiropractic Literature
  - PubMed
  - PEDro



# Index to Chiropractic Literature



- <https://www.chiroindex.org/>
- The primary goal of the *Index to Chiropractic Literature* is to provide indexing of the peer-reviewed literature produced by chiropractic publishers. (See [Journal Directory](#).)
- They also provide links to chiropractic organizations, to databases for searching the literature in related health professions, and links to high quality Web resources selected by chiropractic librarians.



## Index to Chiropractic Literature



My ICL → Sign In

*Helping chiropractic clinicians, educators,  
students and researchers find the  
literature they need, since 1979*

Tuesday, August 31, 2021



Help

About Us

Journals Directory

More Resources

My ICL

**PubMed.gov**

Advanced

- PubMed® comprises more than 32 million citations for biomedical literature from MEDLINE, life science journals, and online books.
- Citations may include links to full text content from PubMed Central and publisher web sites.



[Home](#) [New Search \(Simple\)](#) [New Search \(Advanced\)](#) [Search Help](#)

## Simple Search

---

Search term (or terms):

Search

- PEDro has been designed to support the practice of evidence-based physiotherapy.
- It gives rapid access to the best research evaluating the effects of physiotherapy interventions.
- Only studies using the most rigorous research methods are indexed: randomised controlled trials, systematic reviews and evidence-based clinical practice guidelines.
- A unique feature of PEDro is that trials are independently assessed for quality using the PEDro scale.
- These quality ratings are used to quickly guide users to trials that are more likely to be valid and to contain sufficient information to guide practice.

## Additional Pre-Evaluated Evidence Available to You



SPINE IQ  
Smarter Sources. Better Solutions.

<https://spineiq.org/>



CHIROUP

<https://chiroup.com/>

## Find the right back care.

If you have back or neck issues, you're in the right place. Spine IQ can help you find self-care resources, search for a Spine IQ recognized clinician, or learn the latest about treatments. For patient solutions, click below.

ENTER



## Be the right back care.

Are you a clinician dedicated to high-quality back or neck care? You're in the right place. Spine IQ helps you help more patients. Find out how to qualify for our Quality Recognition Program. For clinician options, click below.

ENTER

[Home](#)

[Patient Home](#)

[Clinician Home](#)

[About Spine IQ](#)

Spine IQ

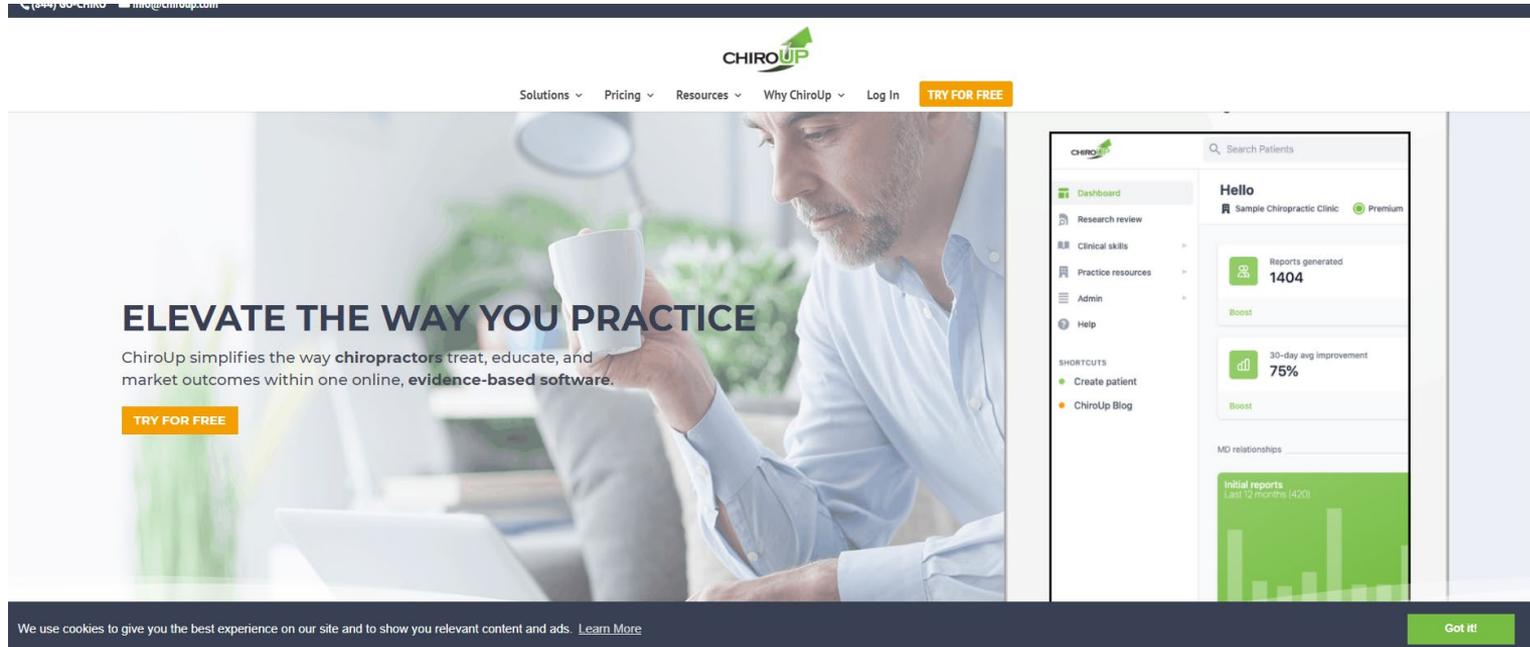
108 1st Avenue East  
Oskaloosa, IA 52577

SPINE IQ  
Smarter Sources. Better Solutions.

## SPINE IQ

- The Spine Institute for Quality™ (Spine IQ™) is a private, not-for-profit organization with the mission to define quality, demonstrate value, and build trust in conservative spine care delivery.
- They promote non-pharmacological, conservative management of spine-related disorders.
- They collect patient satisfaction data.
- Registered chiropractors get access to evidence-based training materials to help you engage in evidence-based, guideline congruent, patient-centered care of those suffering from spine-related disorders.

# ChiroUp



The screenshot shows the ChiroUp website interface. At the top, there is a navigation bar with the ChiroUp logo, a search bar, and menu items: Solutions, Pricing, Resources, Why ChiroUp, Log In, and a prominent orange 'TRY FOR FREE' button. The main content area features a large background image of a man in a light blue shirt holding a white mug, looking at a laptop. Overlaid on this image is the text 'ELEVATE THE WAY YOU PRACTICE' in large, bold, dark letters. Below this, a smaller line of text reads: 'ChiroUp simplifies the way **chiropractors** treat, educate, and market outcomes within one online, **evidence-based software**.' A small orange 'TRY FOR FREE' button is positioned below the text. On the right side of the main content area, there is a preview of the ChiroUp dashboard. The dashboard includes a search bar, a 'Hello' greeting for 'Sample Chiropractic Clinic' with a 'Premium' status, and several key performance indicators: 'Reports generated 1404' with a 'Boost' button, '30-day avg improvement 75%' with a 'Boost' button, and 'MD relationships' with a section for 'Initial reports (Last 12 months (400))' shown as a green bar chart. At the bottom of the dashboard preview, there is a green 'Got it!' button. A dark footer bar at the very bottom of the screenshot contains the text: 'We use cookies to give you the best experience on our site and to show you relevant content and ads. [Learn More](#)'.

US\$ 149/month



# ChiroUp

- <https://chiroup.com/>
- Evidence-based Condition Protocols.
- Each protocol contains an up-to-date and evidence-based introduction, etiology, clinical presentation, diagnostics, differentials, clinical pearls, ICD 10 code, AND video demonstrations for the most pertinent tests, treatments, & exercises.
- Over 105 protocols developed to date!
- Video Demonstrations.
- Continually reviews & updated.
- Provide up-to-date, best practice resources that are simple to access and employ.
- Patient App with videos and handouts.

# JOHN/DAVE I will create a Camtasia video showing how I search for basic science about chiropractic and enuresis

- Do Chiro Academy Search for basic science mechanisms of chiropractic
  - Brain awareness of internal signals (interception) and external signals (exteroception)
  - Affects processing of PFC and Cerebellum
- From google scholar search on 'interception' and how brain controls bladder (micturition centres)
  - Key brain areas involved in Interception is Insular Cortex and Anterior Cingulate Cortex
  - Key brain areas that are known to be involved in micturition include Insular cortex, anterior cingulate cortex, medial prefrontal cortex, Pons micturition centers and Periaqueductal gray in midbrain.
- From google scholar search 'enuresis and mechanisms' we find things like
  - Overactive bladder
  - Arousal problems
  - psychological/psychiatric problems (linked to prefrontal cortex dysfunction)
  - Constipation (linked to prefrontal cortex dysfunction)
  - Sleep disorder (linked to prefrontal cortex dysfunction)
  - the autonomous nervous system imbalance (linked to prefrontal cortex dysfunction)
  - disturbances in the upper pons
  - cerebello-thalamo-frontal circuit abnormalities (prefrontal cortex)
- Google scholar search mechanisms of enuresis

# From Search for Basic Science About Enuresis

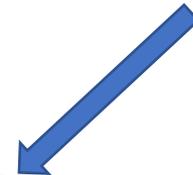
- From Chiros Academy Search for basic science mechanisms of chiropractic
  - Brain awareness of internal signals and external signals
  - Adjustments affect processing of **Prefrontal Cortex** and **Cerebellum**

- From Google Scholar we found things like:

- Key brain areas that are known to be involved in micturition include Insular cortex, anterior cingulate cortex, medial **prefrontal cortex**, Pons micturition centers and Periaqueductal gray in midbrain.
- Overactive bladder
- Arousal problems
- psychological/psychiatric problems (linked to **prefrontal cortex** dysfunction)
- Constipation (linked to **prefrontal cortex** dysfunction)
- Sleep disorder (linked to **prefrontal cortex** dysfunction)
- Autonomous nervous system imbalance (linked to **prefrontal cortex** dysfunction)
- disturbances in the upper pons
- **Cerebello**-thalamo-frontal (**prefrontal cortex**) circuit abnormalities with kids with enuresis



**ChirosAcademy.com**  
The science of chiropractic



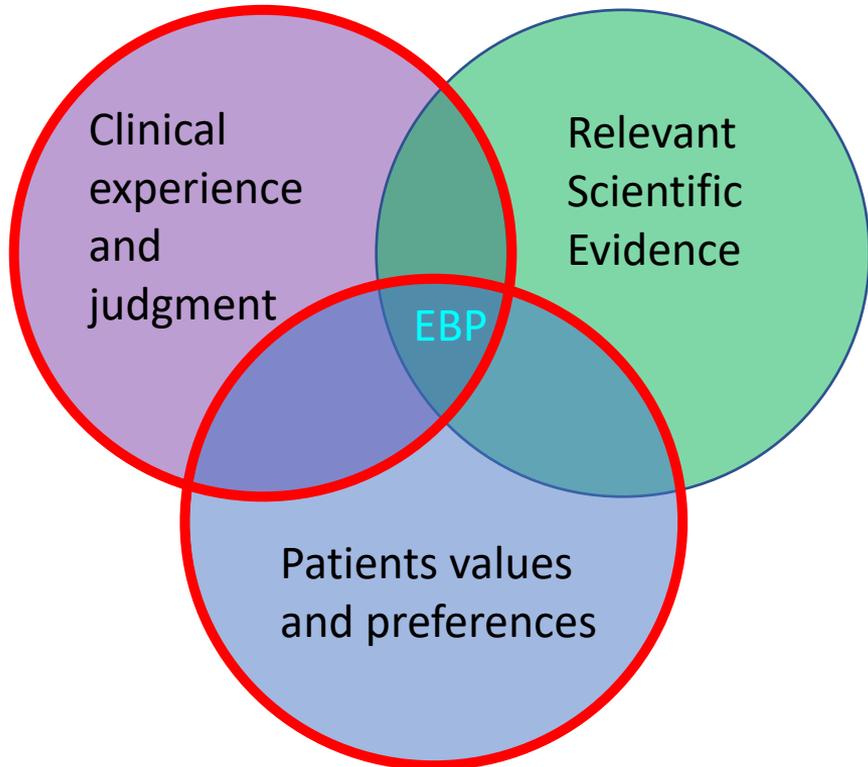
# Summary of Clinical Research to Discuss



- Best known treatment for Enuresis according to science is Alarm therapy.
- Tricyclics and Desmopressin drugs work, but only work so long whilst taking the drugs, and have known side effects.
- The worst possible side effect of Desmopressin is the possibility of hyponatremia, which means a drop of sodium levels in the blood that can lead to death.
- There was weak favourable evidence to support the use of hypnosis, psychotherapy, acupuncture, and medicinal herbs.
- There was weak favourable evidence to support the use of chiropractic.
- Chiropractic care for kids is safe and usually has extremely high patient satisfaction.
- Most common side effects from chiropractic care is mild aches and pains that go away by themselves and do not require any additional treatment.
- Tell them about Reed et al's 1994 study.

# Patient-Focused, Evidence-Based Practice

Dr David Sackett - the father of evidence-based medicine



1. What the condition is  Basic Science
2. How your care works  Basic Science
3. The efficacy & safety of chiropractic care  Clinical Science
4. The efficacy & safety of current medical care  Clinical Science

# The Evidence Pillar

- You have found, summarised, critiqued, and prepared the relevant:
  - Basic science evidence about their condition
  - Basic science evidence about chiropractic
  - Clinical science evidence about chiropractic for their condition
  - Clinical science evidence about alternative options for their condition
- You have checked what actions are encouraged for the level of clinical evidence regarding chiropractic and alternative options.
- You are now ready to share the Relevant scientific evidence.
- Now you need to prepared public-friendly materials for your patient:
  - Whiteboard animations
  - Referenced public summary articles
  - Online topic blogs



# Public-Friendly Evidence-Based Resources to Help You Share the Relevant Science

- You need to prepare public-friendly materials for your patient:
  - Online topic blogs
  - Referenced public summary articles
  - Whiteboard animations

**Introduction to Chiropractic**

The introduction to chiropractic video series is the perfect way to gain an understanding of why chiropractic care may help you and your family.

[View Articles](#)

**Benefits of Chiropractic Care**

There are many scientifically proven benefits from chiropractic care. Let's explore what they are and how you can benefit too!

[View Articles](#)

**Chiropractic and Children**

Chiropractic care is not just for adults. Children can benefit from it too! In this video series, we review the research around the benefits of chiropractic care for children.

[View Articles](#)

**The Beginners Guide to Chiropractic**

In this first introductory video we explore what chiropractic is all about, and how it works, then we briefly explore the evidence informed effects of chiropractic care.

[View video](#)

**How the Brain Perceives the World**

Did you know that your brain and central nervous system are constantly changing? It's quite amazing – from one day to the next your brain is not the same.

[View video](#)

**Chiropractic Affects your Brain**

Your brain receives information about your body from the environment and your organs. Did you know that the muscles in your body are also sensory organs?

[View video](#)

**Chiropractic Care and Bedwetting**

As parents you would have discovered that your child occasionally wets their bed at night, but usually this is something they grow out of but for some kids this does not happen.

[View video](#)

**Safety of Chiropractic for Children and Babies**

Before babies are born the pressure they're under in mum's uterus can cause changes in the way their bones move and fuse together and can influence the shape of their skull.

[View video](#)

**BED-WETTING**  
 Making a common issue more understandable. Dr. Heidi Haavik. Did you know that thousands of children accidentally wet the bed at night? It's not just a phase, it's a problem that can affect a child's self-esteem and social life.

**EFFECTS OF AN ADJUSTMENT**  
 Recent scientific studies are revealing a new understanding about how chiropractic spinal adjustments work. Today over a hundred years on from the first chiropractic adjustment, we know much more about how the brain and the rest of the central nervous system function. And we are beginning to understand the big picture of how chiropractic adjustments really work.

**SAFETY**  
 Many people are worried about getting a chiropractor because they think that chiropractic is remarkably safe, and it's effective and it's associated with high levels of satisfaction.

# Summary and Take-Home Messages



- The scientific information you need to gather for a report of finding when practicing according to the patient-focussed, evidence-based chiropractic care model is:
  - What the condition is (Basic Science)
  - What chiropractic care is (Basic Science)
  - The Safety and Efficacy of Chiropractic care for this condition (Clinical Science)
  - The Safety and Efficacy of Other medical or alternative care for this condition (Clinical Science)
- When searching for the relevant scientific research it helps to have a well-built question.
- One way to construct a well-built question is to use the PICO model.
- PICO stands for patient/population, intervention, comparison and outcomes.

# Summary and Take Home Messages



- All course materials on ChiroAcademy contain the absolute latest scientific studies and summaries, all critiqued and translated into the language of a practicing chiropractor.
- ChiroHub contains whiteboard animations and written summaries on a range of topics, fully referenced, and in lay language to help share this relevant scientific information appropriately and easily with your patients.
- Cochrane library of systematic reviews is the 'gold standard' of literature reviews.
- To translate the clinical evidence into 'what you can do' use the information from the Figure in Brontfort et al.'s 2010 publication.
- If you still need to find more information, try Index to Chiropractic Literature, PubMed and/or PEDro search databases.
- SPINE IQ provides you with information about non-pharmacological, conservative management of spine related disorders.
- ChiroUP provides evidence-based, condition-specific protocols for over 100 different, mainly musculoskeletal, conditions.



# Thank You

DR. HEIDI HAAVIK

ENLIGHTENING THE  
WORLD ABOUT THE  
SCIENCE OF CHIROPRACTIC



## Introduction to Chiropractic Care

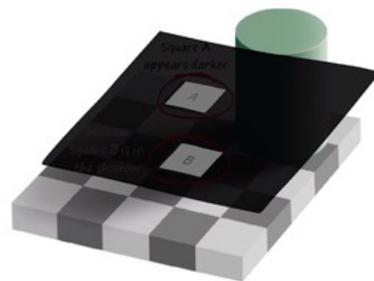
The introduction to chiropractic video series is the perfect way to gain an understanding of why chiropractic care may help you and your family.



### The Beginners Guide to Chiropractic

In this first introductory video we explore what chiropractic is all about, and how it works, then we briefly explore the evidence informed effects of chiropractic care.

[View video >](#)



### How the Brain Perceives the World

Did you know that your brain and central nervous system are constantly changing? It's quite amazing - from one day to the next your brain is not the same.

[View video >](#)

# The Beginners Guide to Chiropractic

## The Beginners Guide to Chiropractic

The word chiropractic derives from the Greek words "cheir", meaning hand, and "praktikos" meaning skilled in or concerned with. The origin of the word chiropractic can be traced back to [D.D. Palmer](#) who coined it in 1895 when he founded chiropractic.

Chiropractic care is really about total health and wellbeing

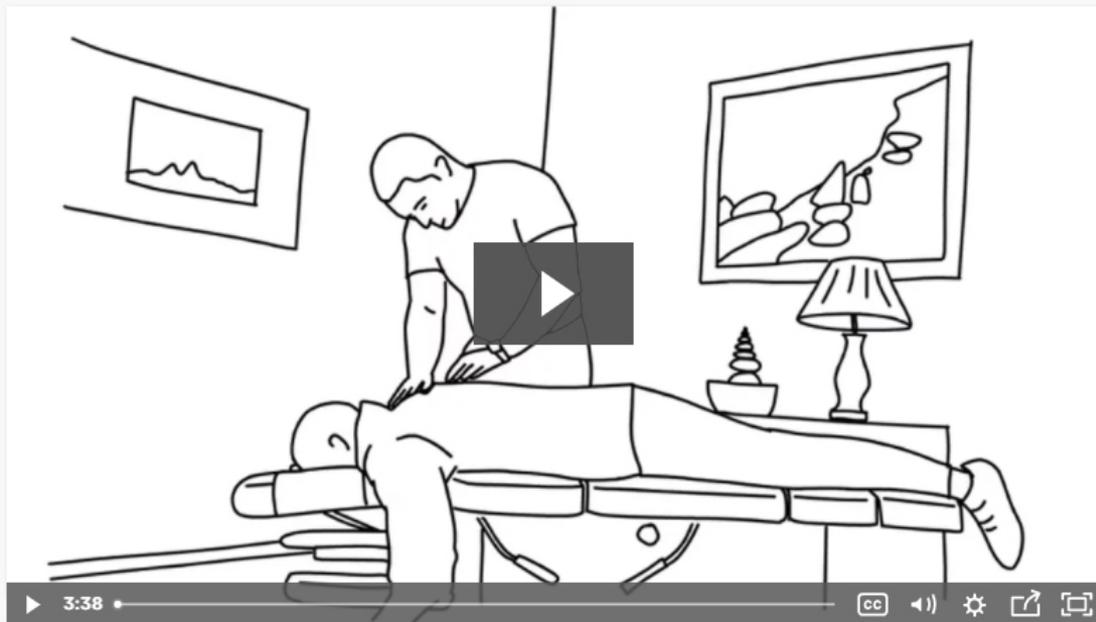
### What does a Chiropractor do?

A chiropractor is a healthcare professional who specializes in the health and [function of the spine](#) and nervous system. Because of this focus on the spine, many people think chiropractors can only help with problems such as back pain, [neck pain](#) and [headaches](#). They can often help with these issues but there is much more to chiropractic than just pain.

This is the first video in our animated series "Introduction to Chiropractic". In this video, we outline what a chiropractor does, then we briefly explore the effects of care. It is a perfect one to watch for anyone that is curious about chiropractic care, and how it can help their family.

### Video References

1. Rosner AL. Chiropractic Identity: A Neurological, Professional, and Political Assessment. *J Chiropr Humanit* 2016;23(1):35-45.
2. de Souza R, Ebrall P. Understanding wellness in a contemporary context of chiropractic practice. *Chiropr J Aust* 2008;38(1):12-16.
3. Schuster TL, Dobson M, Jauregui M, et al. Wellness lifestyles II: Modeling the dynamic of wellness, health lifestyle practices, and Network: Spinal Analysis. *J Altern Complement Med* 2004;10(2):357-67.
4. Henderson CN. The basis for spinal manipulation: Chiropractic perspective of indications and theory. *J Electromyogr Kinesiol* 2012.
5. Haavik H, Murphy B. The role of spinal manipulation in addressing disordered sensorimotor integration and altered motor control. *J Electromyogr Kinesiol* 2012;22(5):760-76.
6. Haavik Taylor H, Holt K, Murphy B. Exploring the neuromodulatory effects of the vertebral subluxation and chiropractic care. *Chiropr J Aust* 2010;40(1):37-44.
7. Herzog W, Zhang YT, Conway PJ, et al. Cavitation sounds during spinal manipulative treatments. *Journal of Manipulative & Physiological Therapeutics* 1993;16(8):523-6.

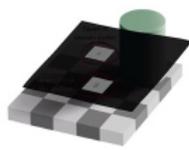




### The Beginners Guide to Chiropractic

In this first introductory video we explore what chiropractic is all about, and how it works, then we briefly explore the evidence informed effects of chiropractic care.

[View Video](#)



### How the Brain Perceives the World

Did you know that your brain and central nervous system are constantly changing? It's quite amazing – from one day to the next your brain is not the same.

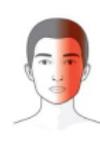
[View Video](#)



### Break the Pain Cycle

Did you know that pain is created in your brain to let you know that something is not ok within your body? Feeling pain is good because it is actually helpful and informative.

[View Video](#)



### Chiropractic Care and Migraines

Did you know that 1 in 6 people in the world experience migraines regularly? The World Health Organisation consider them to be the most debilitating of all neurological disorders.

[View Video](#)



### Chiropractic Affects your Brain

Your brain receives information about your body from the environment and your organs. Did you know that the muscles in your body are also sensory organs?

[View Video](#)



### What is that Pop?

If you have been adjusted before by a chiropractor you may have noticed a strange popping sound. Don't worry – it is just the formation of gas within a joint.

[View Video](#)



### Lower Back Pain

Scientists have worked out that at any one time, over 500,000,000 people around the world are suffering from low back pain and it is now the leading cause of disability worldwide.

[View Video](#)



### Growing Pains

We've all heard of growing pains right? But did you know that what we call growing pains aren't associated with growing? So they're not actually growing pains at all.

[View Video](#)



### Pain and the Immune System

Research studies have shown that the way you feel pain all depends on what's going on for you – and most importantly – what you think and feel about the situation.

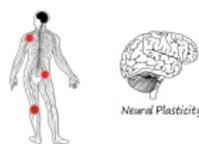
[View Video](#)



### Chiropractic and Headaches

Headaches are a sign that something is not right. Your brain will create for you the sensation of pain if it thinks there is something wrong or if there is a potential problem.

[View Video](#)



### Pain is Created in Your Brain

Did you know that the scientists now know that the feeling of pain is something your brain decides that you should experience – if it believes that there is a problem?

[View Video](#)



### Chronic Pain

Chronic pain is the second-most common reason people see a doctor and miss work. More than one-third of people with chronic pain become disabled by their pain to some degree.

[View Video](#)

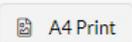
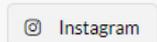
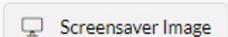
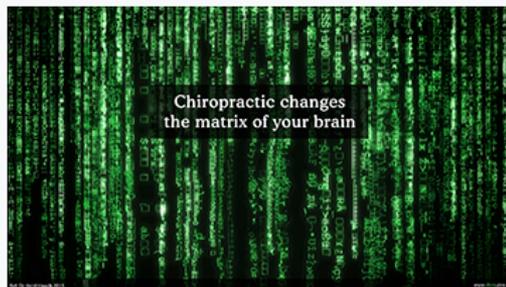
## Print & Digital Assets

High-resolution images, A4 print brochures and A3 sized posters for you to download and share.

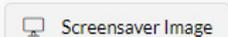


To download the digital assets, simply click on the corresponding button below the image.

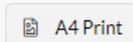
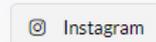
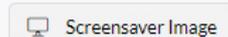
1.



2.



3.



## Trykte og digitale ressurser

Bilder med høy oppløsning, A4-trykte brosjyrer og plakater i A3-størrelse som du kan laste ned og dele.



For å laste ned de digitale eiendelene, klikker du bare på den aktuelle knappen under bildet.

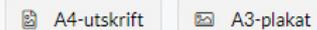
1.



2.



3.



# Chiropractic Research

Research summary articles to read, download and print (members only) all backed by the latest scientific research studies.



## Chronic Pain

Chronic pain that has persisted for more than 3 months is no longer protective, nor informative. So, what is chronic pain and what can you do about it?

[Read more »](#)

## Pain is in the Brain

Sometimes pain persists long after tissue damage has actually healed. When pain persists for more than three months we call this chronic pain.

[Read more »](#)

## Neck Pain

Up to half the world's population suffers from neck pain at some stage. For some, one big problem is that it just keeps coming back, or becomes chronic.

[Read more »](#)



# UNDERSTANDING PAIN



Dr. Kelly Holt

BSc, BSc(Chiro), PGDipHSc, PhD

Dr. Heidi Haavik

BSc(Physiol), BSc(Chiro) PhD

Experiencing pain is normal. Everyone experiences pain now and then.<sup>1</sup> Pain is supposed to be protective to make you stop doing things that may be dangerous.<sup>2</sup> But chronic pain that has persisted for more than 3 months is no longer protective, nor is it helpful.<sup>3</sup> So, what is chronic pain and how do you deal with it if you suffer from it?

## PAIN IS CREATED IN THE BRAIN



Dr. Kelly Holt

BSc, BSc(Chiro), PGDipHSc, PhD

Dr. Heidi Haavik

BSc(Physiol), BSc(Chiro) PhD

Did you know that scientists now know the feeling of pain is something your brain decides you should experience if it believes there is some tissue damage in your body?<sup>1</sup> In fact, your brain can decide that you should feel pain even if it only thinks there is a potential threat of tissue damage!!!<sup>2-5</sup>

It may seem strange, but it's totally up to your brain to decide whether you should feel pain or not. Your brain may decide you should experience pain even if you have no actual tissue damage yet,<sup>6</sup> or your brain may not create the feeling of pain for you when tissue damage has actually occurred!<sup>7,8</sup>

heals the problem.<sup>1</sup> This pain is helpful and informative.<sup>1</sup> If we listen to our body these pain experiences can be a good thing.

But for some people, pain can persist even after the initial injury that caused it has healed.<sup>9,11,12</sup> And for some people, the pain in these areas that are not injured at all, become non-



brain  
anger  
that  
issue  
are  
ell,



types of pain is the  
100% of the time,  
not mean it's not  
itself is created in  
you can get rid of  
on what you thi  
important you u

Your pain exp  
as decided y  
reating the  
ce.<sup>5</sup> It can

## NECK PAIN AND FALLS RISK



Dr. Kelly Holt

BSc, BSc(Chiro), PGDipHSc, PhD

Dr. Heidi Haavik

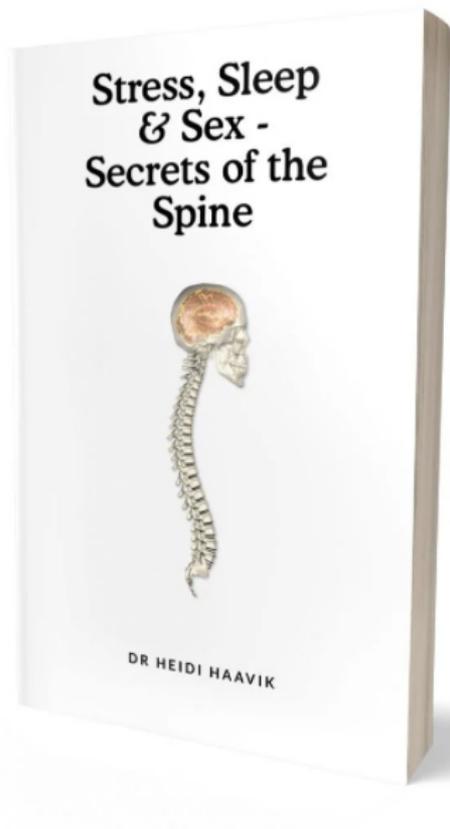
BSc(Physiol), BSc(Chiro) PhD



Neck pain is very common throughout the world.<sup>1</sup> Up to half of all people around the world suffer from neck pain at some stage each year.<sup>2-5</sup> For some people, one big problem with neck pain is that it just keeps coming back, or becomes chronic, and may even increase their risk of suffering from a fall.<sup>2,4,6,7</sup>

Scientists know that your brain uses sensory information from your muscles and joints around your spine to help control your balance and posture and to make sure you're moving properly.<sup>1,2</sup> When your brain takes sensory information and uses it to help guide movements and control muscles we call this sensorimotor function.<sup>3</sup> One particular study looked at whether neck pain has an impact on proper sensorimotor function in older people.<sup>7</sup> In this study, the researchers ran a whole lot of tests of sensorimotor function, like how well the study participants controlled the movement of their eyes and how good their balance was, and they took into account their age and other conditions that they suffered from.





## Get notified when this book is published!

Notify me when Dr Haavik's new book is published. Simply enter your details in the form below:

\* indicates required

Email Address \*

First Name

Last Name

Notify Me

[www.secretsofthespine.com](http://www.secretsofthespine.com)