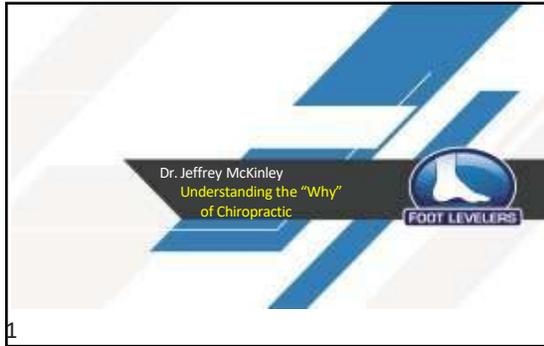


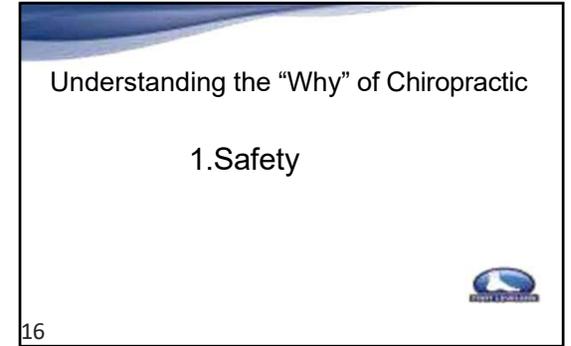
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Presented by
Mark Charrette, DC

AN AMERICAN EPIDEMIC

A Survey of the Opioid Crisis...
And the Cure.



17

4

Common Opioids

- Codeine
- Hydrocodone (Vicodin®, Hycodan®)
- Morphine (MS Contin®, Kadian®)
- Oxycodone (OxyContin®, Percocet®)
- Hydromorphone (Dilaudid®)
- Fentanyl (Duragesic®)



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U.S. National Institute on Drug Abuse (NIDA)

- Oxycodone (Oxycontin) began being sold in 1996.

“Pharmaceutical companies reassured the medical community that patients would not become addicted to prescription opioid pain relievers, and health care providers began to prescribe them at greater rates.”



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U.S. National Institute on Drug Abuse (NIDA)

"... this subsequently led to widespread diversion and misuse of these medications before it became clear that these medications could indeed be highly addictive."



Source: National Institute on Drug Abuse, "Opioid Overdose Crisis," NIDA, 27-Aug-2019, www.drugabuse.gov/news-events/abuse/opioids/opioid-overdose-crisis.

20

7

False Advertising Created the Opioid Crisis

A single paragraph in a 1980 letter to the editor (not a study) in the New England Journal of Medicine – which stated that narcotic addiction in patients with no history of addiction was very rare – became the basis of a drug marketing campaign that has since led to the death of hundreds of thousands of people.



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False Advertising Created the Opioid Crisis

In reality, opioids have a very high rate of addiction and have not been proven effective for long term use.



Source: Medscape September 28, 2015

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OPIOIDS

The economic burden to the U.S. is an estimated
\$504 billion a year.



23

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Death from Drug Overdose
November 2016

U.S. Surgeon General Dr. Vivek Murthy reported that
73 Americans
were dying every day from opioid overdoses – four times as many as in 1999. Requesting a nationwide call to action, Murthy asked the country to shift away from current policies and approach the problem as a chronic public health issue, rather than a criminal one.



Sources: Facing Addiction in America: The Surgeon General's Report, Page III, Foreword, 2016.

24

11

Death from Drug Overdose
Vietnam War

1 year of overdose deaths



Sources: Lopez, German. "In One Year, Drug Overdoses Killed More Americans than the Entire Vietnam War Did." Vox.com, Vox Media, 8 June 2017.

25

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76% of overdose deaths worldwide
Pharmaceutically-produced opioids



Sources: Hedegaard H, Warner M, Miniño AM. Drug overdose deaths in the United States, 1999–2016. NCHS Data Brief, no 294. Hyattsville, MD: National Center for Health Statistics; 2017.

26

13

More than half of people who use opioids for three months will still be using them five years later.

27

14

Understanding the “Why” of Chiropractic

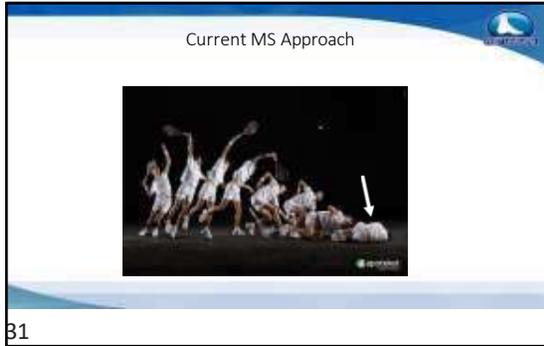
1. Safety
2. Biomechanics



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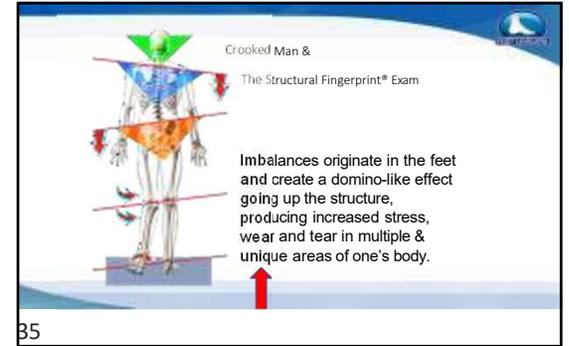
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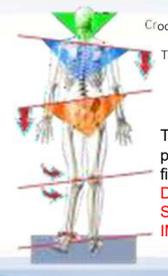
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Crooked Man &
The Structural Fingerprint® Exam



These imbalances produce predictable biomechanical findings with unique symptoms.
DON'T CHASE THE SYMPTOMS – CORRECT THE IMBALANCES.

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19

Check Arch Height
Don't worry about mild, moderate, or severe!



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Optimal, Mild,
Moderate or Severe?



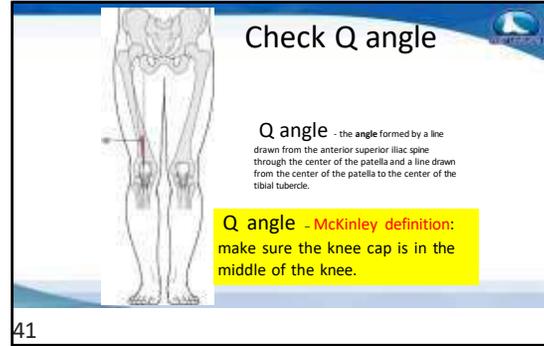
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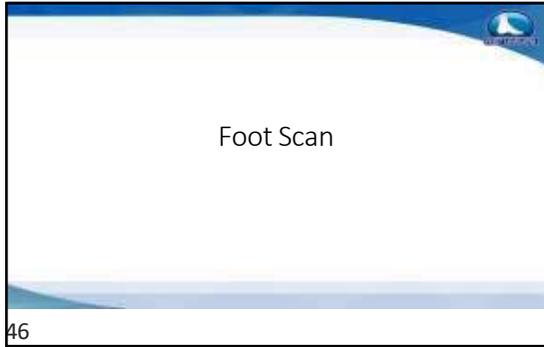


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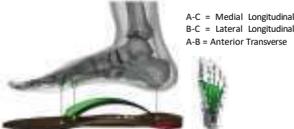
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How Does Foot Levelers Do It?
By addressing all 3 arches of the foot



A-C = Medial Longitudinal
B-C = Lateral Longitudinal
A-B = Anterior Transverse

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Orthotics - Goal #1
Create a *symmetrical foundation* by blocking excessive pronation or supporting supination within the established normal angulation ranges.

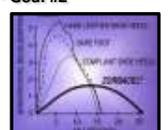


MEIAL LONGITUDINAL ARCH
A RANGE OF 120-128°

50

32

Orthotics - Goal #2
Provide heel strike shock protection



The natural heel strike shock absorption mechanisms are compromised with faulty gaital biomechanics making the individual more susceptible to bone marrow edema and stress fractures.

Foot Levelers uses ZORBACEL® for increased shock absorption.

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Orthotic - Goal #3

Reduce Injuries

With improved balance and balanced loading of all tendons, muscles and joints, total accumulated stress is reduced.



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You Might Expect Results This Dramatic In Weeks



This Took 30 Seconds!

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Why Foot Levelers?

80% of the population will experience low back pain in their lifetime

77% of the population suffers from moderate to severe pronation

2.5 As the heel strikes the ground, the force that radiates through the body is equal to 2.5 times body weight.



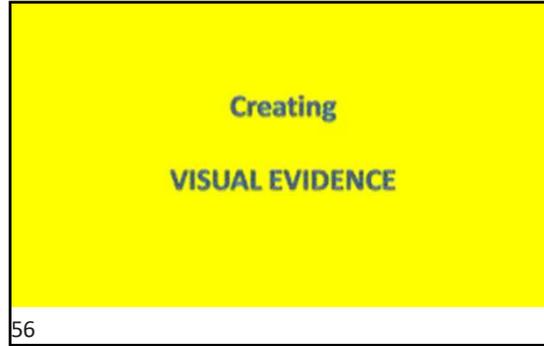
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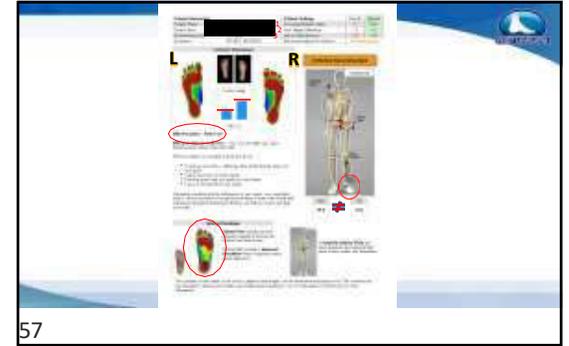
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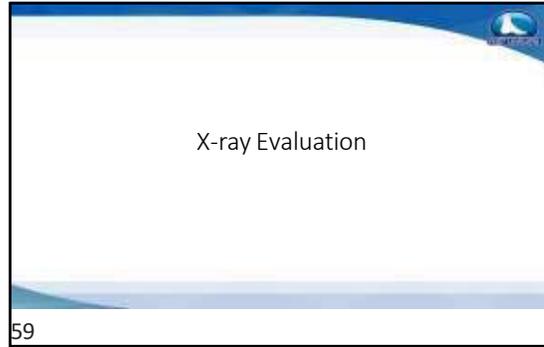


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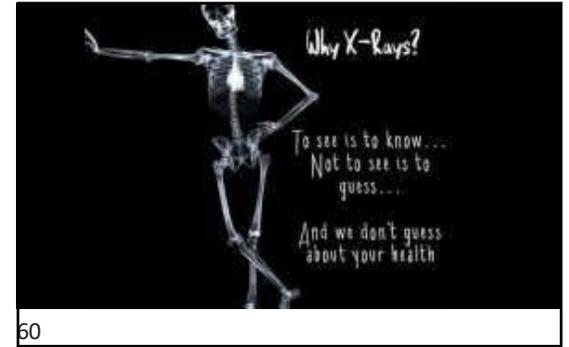
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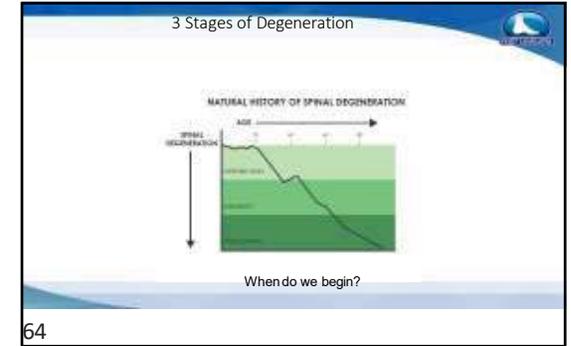


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Abnormal mechanical loading causes predictable changes

Slide 63 contains the text "Abnormal mechanical loading causes predictable changes". The slide number "63" is in the bottom left corner.

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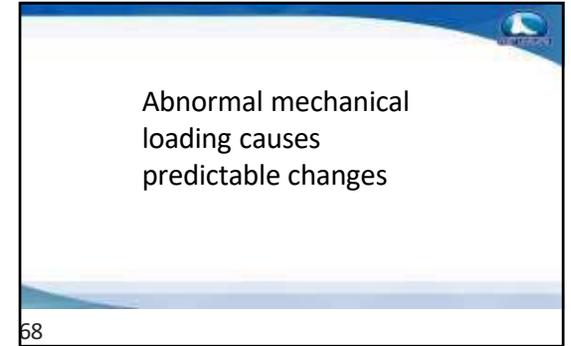
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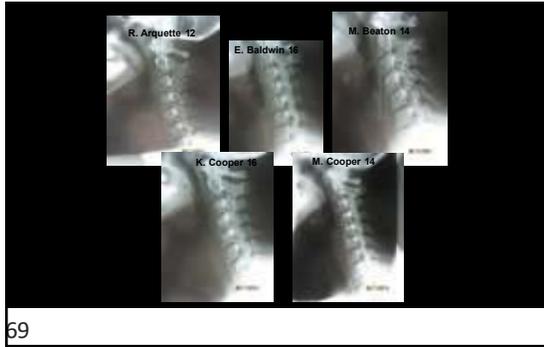


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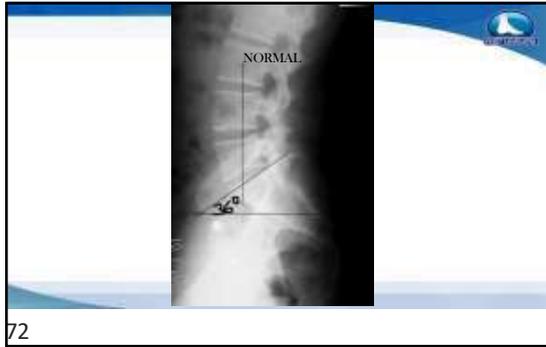


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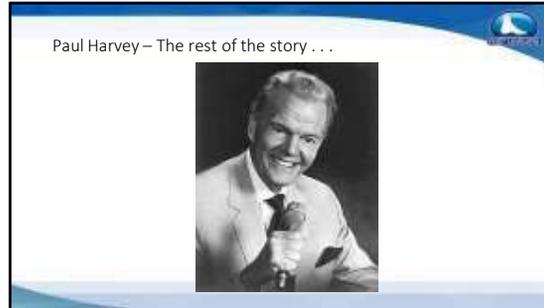
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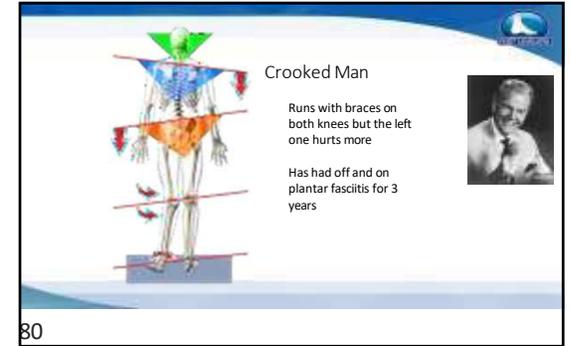
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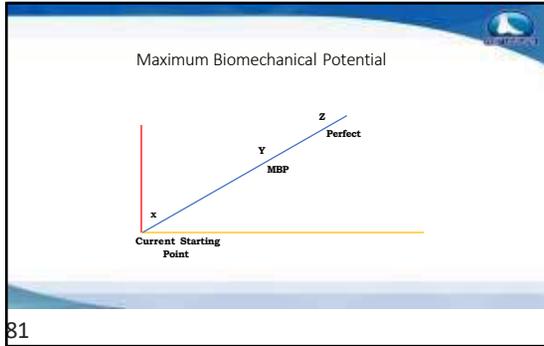


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Understanding the “Why” of Chiropractic

1. Safety
2. Biomechanics
3. Neurology

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Why do you adjust?

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Pain and Plasticity

Dr. Heidi Haavik
The Reality Check:
A Quest to Understand Chiropractic From the Inside Out

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To improve the
mechanical loading

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Take home message for Low Back Pain

"For people with low back pain chiropractic care is as effective, if not more effective than other treatment options. More research needs to be done to work out just how effective it is, but for now, the research suggests there are no better treatment options available."

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Take home message for Neck Pain

"For people with neck pain, chiropractic care is an effective care option. More research still needs to be done to work out exactly how effective it is, but it's as good as other care options that are available. It's also cost effective and it's safe."



Byrne et al. Subacute/chronic guidelines for the chiropractic treatment of adults with neck pain. J Manipulative Physiol Ther. 2015;38(2):105-114. Wang et al. An manual therapy, passive physical modalities, or acupuncture protocol for the management of patients with subacute/chronic, cervicogenic, or neck pain and associated disability: a synthesis of the best and best. Spine (Phila Pa 1976) and its Associated Disorders. Clin J Spine (Phila Pa 1976) 2015;38(2):105-114. Gray et al. Manipulation or mobilization for neck pain in Children. Health Aff (Millwood) 2015;34(10):1915-1921.

88

67

Take-home message about Headaches

"For people with some types of headaches (migraine & cervicogenic) chiropractic care is as effective, or more effective than drugs and other treatment options. For some types of headaches more research still needs to be done to work out exactly how effective chiropractic care is. But chiropractic care is safe and well worth trying if you or someone you know is suffering from headaches."



Byrne et al. Subacute/chronic guidelines for the chiropractic treatment of adults with headache. J Manipulative Physiol Ther. 2015;38(2):105-114. Brumby et al. Effectiveness of manual therapies for the management of chronic tension headaches: a systematic review. J Manipulative Physiol Ther. 2015;38(2):105-114. Brumby et al. Effectiveness of manual therapies for the management of chronic tension headaches: a systematic review. J Manipulative Physiol Ther. 2015;38(2):105-114.

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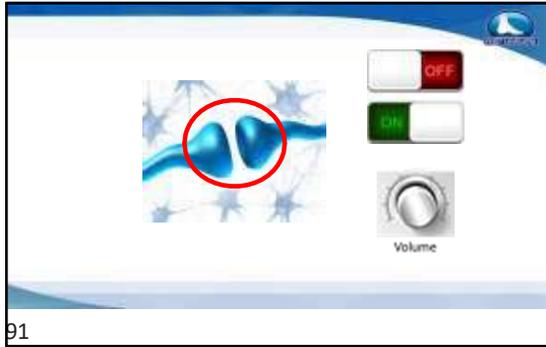
NEURAL PLASTICITY



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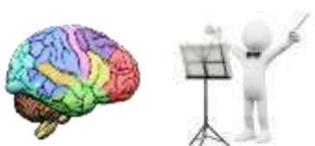


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Chiropractic impacts the Prefrontal Cortex - the Brain's Conductor



Lalic, D., Niaz, I.K., Hob, K., Jochumsen, M., Dremstrup, K., Yelder, P., Murphy, B., Drewes A. M., & Haavik, H. (2016). Manipulation of dysfunctional spinal joints affects sensorimotor integration in the prefrontal cortex: A brain source localization study. *Neural Plasticity*, 1. doi:10.1155/2016/3704964.

99

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PFC plays key role in pain processing



Volume

Involves in the process where pain becomes chronic

100

77

"the little muscles closest to your spine and skull go to sleep, because there is no use for them if you are trying to avoid a saber tooth tiger"



Butler, D., Mowley, G. Explain Pain Adelaide, Australia: Neigroup Publications, 2003.

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Symptoms often only arise when there are 1000 things that have gone wrong already

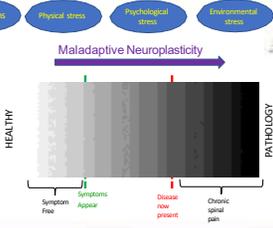


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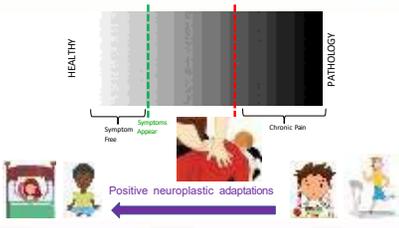
Sublimations Physical stress Psychological stress Environmental stress

Maladaptive Neuroplasticity



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Unless you change the
LOADING you will never
change the **DESTRUCTION**.

- Tim Maggs, DC

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Understanding the "Why" of Chiropractic

1. Safety
2. Biomechanics
3. Neurology



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