

# April 2019 Newsletter

## BROUGHT TO YOU BY WEST CHIROPRACTIC

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### Top Stories In This Newsletter

*The Mystery of Calcium Deposits, Kidney Stones & Nanobacteria*

*Meet our April Client of the Month, Nat*

*Get ready for the Easter Special*

*Catch up with Jeremy, Lauren and Antonio, Tina and our newest member, Sam*

## The Mystery of Calcium Deposits, Kidney Stones & Nanobacteria

Approximately seven percent of adult men develop renal or bladder stones containing calcium mineral salts.

In fact, calcification appears to be a relatively common feature of human disease. Apart from kidney stones, other conditions associated with calcification include:

- Bladder stones
- Dental pulp stones
- Some gall stones
- Salivary gland stones
- Chronic calculous prostatitis
- Testicular microliths
- Atherosclerosis
- Some malignancies
- Some dementias
- Calcific tendinitis and arthritis

In some cases, mineralisation can even be life-threatening. Yet surprisingly little is known about why these calcium deposits form.

Several studies in the past twenty years have opened up the possibility of nanobacteria causing these deposits and, in the process, creating considerable headaches for the medical community.

### What are nanobacteria and why are they of interest?

Nanobacteria are cell-walled microorganisms about a tenth the size of the smallest normal bacteria: around 0.05–0.5 µm in diameter.

They are the smallest known type of bacteria and were only discovered in the last couple of decades, in human and cow blood.

Nanobacteria have some distinctive properties, including heat resistance and the ability to pass through 0.1-µm sterilization filters.

Much of the interest in nanobacteria originated from NASA researchers looking into the rapidly forming nature of kidney stones in astronauts.

It is a relatively new field that is of interest to the scientific and medical community.

## What have the key studies found?

Two 1998 studies looked at the problem of calcification in relation to the growth phases of nanobacteria and, in particular, kidney stones.

One found that all growth phases produced the mineral carbonate on their cell envelope at neutral pH (going against the conventional wisdom that elevated pH helps to cause the calcification):

*"The biomineralization in cell culture media resulted in biofilms and mineral aggregates closely resembling those found in tissue calcification and kidney stones."*

A second study found that nanobacteria "produce sufficient calcium apatite to initiate pathologic calcification and stone formation."

In 2005, nanobacteria were found to multiply five times faster in low-gravity conditions than in normal Earth gravity, again highlighting their potential role in forming kidney stones in astronauts.

## The hardest of all bacteria?

The extracellular calcification creates a protective shell that allows nanobacteria to survive conditions that would eliminate normal bacteria. It makes them especially hardy and resistant.

And while renal stones have never been considered to have an infectious etiology, the carbonate apatite released by nanobacteria could make this a possibility.

The mechanism by which nanobacteria induce the mineralisation is not known but this emerging area of science is likely to shed more light on the nature of disease in the future, with more studies on the presence of nanobacteria in human blood.

In fact, nanobacteria could be behind many health problems. And, with their general resistance to antibiotics (due to their calcified shell), this could present a huge challenge to the medical community.

## References:

Kajander E.O & Ciftcioglu N. Nanobacteria: An alternative mechanism for pathogenic intra- and extracellular calcification and stone formation. Proc. Natl. Acad. Sci. USA Vol. 95, pp. 8274–8279, July 1998 Medical Sciences

Dennis A. Carson. An infectious origin of extraskeletal calcification. Proc. Natl. Acad. Sci. USA Vol. 95, pp. 7846–7847, July 1998

Mathew G, McKay D., Ciftcioglu N. Do Blood-borne Calcifying Nsnoparticles Self-Propagate? International Journal of Nanomedicine 2008:3(2) 265-275.

## Our lovely Client of the Month, Nat



Meet our April Client of the month; Nat! I had severe lower back discomfort, my treatment was without any painful procedures and my issue was greatly relieved quite soon. Jeremy also resolved irregular issues that I hadn't even been aware of. Now I have completed my initial corrective phase I'm very comfortable, and super flexible.

## Easter Special

### BOUNCE IN TO EASTER WITH OUR SPECIAL OFFER

- 1) Initial Consultation
- 2) Posture Analysis
- 3) X-rays ( if clinically justified)
- 4) Report of findings
- 5) 1st adjustment

HAPPY  
Easter

**Usually £250..... for your loved ones absolutely free**

\*cannot be used in conjunction with other offers

expires 30/04/2019

■ **01932 355529** ■

## Catch Up With Us



**Lauren** – is having an amazing time in Mexico. She has been flat out for the last few months with West Chiropractic and training Sam and Tina plus looking after her 2 horses, so a much deserved break. Hope you have a lovely time Lauren and we are looking forward to seeing you when you are back.



**Jeremy** – had a baby. The lovely Kit James Andrews was born on 22/02/2019 weighing 5lbs6 and was so desperate to meet everyone he came 4.5 weeks early much to everyone's surprise. Charlotte and Kit are doing really well and are settling in to their new lives. Jeremy is still in shock and can't believe it all, feel free to make him a cup of tea in the mornings. Thank you for all the lovely gifts and cards, super kind.



**Antonio** – has relished a couple of weekends with his family. Enjoying skiing in the Dolomites with his Dad and brothers and a recent weekend away in Taunton has given him an opportunity to recharge and appreciate some good quality family time. With the weather being sunny whilst he was away skiing, he is looking forward to spring and some sunny times ahead.



**Tina** – Tina has been visiting Universities with her son, his favourite so far is Loughborough, he flies the nest in September (provided he gets the grades!) She also enjoyed a fun day out in London on a hen party with afternoon tea at Fortnum and Mason followed by several celebratory glasses of bubbly. She is very much looking forward to her friend's wedding in Wales next weekend.



**Sam** – This is Sam our brilliant new receptionist. We are thrilled to have Sam on board, she is doing great, please make her feel super welcome.

This is Sam and her husband, Sean celebrating their 25th Wedding Anniversary. They look super happy here and here is to the next 25.