



## CONTENTS

### A. Clinical Update

#### I) Modic Changes on MRI.

#### II) Special Report: EHR

### B. Office News

### C. "Question of the month"

### D. Contact us/request information

## A. Modic changes on MRI and Lower Back Pain

As originally reported by Modic, et al in a 1988 article in Radiology there are characteristic changes found in MR imaging of vertebra coinciding with phases of degeneration of the bone and disc.

Modic type I changes show decreased signal intensity on T1 weighted spin echo images and increased signal intensity on T2 weighted images.

Modic type II changes show increased signal intensity on T1 weighted spin echo images and isointense or slightly increased signal intensity on T2 images.

Modic type III represents decreased signal intensity on both T1 and T2 weighted images.

Modic type I findings are

associated with disruption and fissuring of the endplates and are associated with fibrous vascular changes (probably an inflammatory phase). Type II changes are associated with fatty change in the marrow of the vertebral bone adjacent to the disc. There is no vascularity of Type II changes as determined by lack of gadolinium enhancement. Modic type III changes are probably associated with subchondral sclerosis seen on plain film radiographs.

The evidence suggests that Modic type I changes are associated with symptoms of lower back pain but Modic type II changes are not. Modic type I changes do seem to progress to Modic type II changes within

about 14 – 36 months; therefore, type I changes may worsen with concurrent increased pain and then progress to type II changes with resultant decrease in symptoms.

The incidence of Modic changes in the thoracic and cervical spine have been determined but the clinical significance of these changes in the thoracic and cervical spine has not yet been determined.

(Modic MT, et al. Degenerative disc disease: assessment of changes in vertebral body marrow with MR imaging. Radiology 1988; 166:193-9)

## II) What do.....

- improvements in patient safety
- improvements in care quality
- improved efficiency of care
- pay for performance
- record access from anywhere
- Regional Health Information Organizations (RHIO)
- National Health Information Network (NHIN).....have in common?

They are all priorities in a national health care initiative, and they will all be facilitated by the adoption of an EHR, electronic health record. At the 17<sup>th</sup> annual Health Information Management Strategies Society, a leadership survey was conducted, and 87% of those surveyed either had already implemented an EHR or were planning to implement one. Overall national data suggest that some 12-15% of medical providers have implemented an EHR.

The greatest challenges facing

the EHR environment will be functionality, interoperability and security. A newly developed certification agency, Certification Commission for Healthcare Information Technology (CCHIT), has recently certified some 33 providers of electronic health records, largely based upon standards relative to these three features.

By most reports, the actual implementation of an EHR "going live" is a slow, tedious process. Many groups, from private practices to large hospital based provider groups, have found that modular implementation probably works best. In this scenario, each feature of an EHR is separately implemented, such as prescription module first, followed by laboratory/imaging modules, followed by patient records, etc. While this methodology is time intensive, gaining 'buy in' from the providers and support staff is

more easily administered. While the trend is toward many of the 500 or more EHR software vendors to merge into fewer and larger companies, interoperability will still be a key challenge to developing RHIOs, in which patient information is readily and easily exchanged within a community. With the advent of online banking, and similar services, the issue of security certainly seems manageable in the future. The implementation of EHRs among complementary services such as the chiropractic profession is progressing at a much slower pace. There are fewer outside forces driving change for complementary providers and fewer incentives to adopt this technology. Nevertheless, we fully expect to see electronic health records slowly implemented among those chiropractors interested in integrated models of care.



## B. Office News

Shoreline Spine & Pain Associates, PC is pleased to announce the addition of **Elizabeth Braun, APRN, PhD**. Dr. Braun is a clinical psychologist specializing in chronic pain management.

The doctors of Shoreline Spine & Pain Associates have introduced a new treatment procedure at their facility. **Graston Technique**

**([grastontechnique.com](http://grastontechnique.com))** is an augmented soft tissue mobilization technique that utilizes stainless steel instruments to mobilize soft tissue. This technique is used by practitioners who treat high level Olympic and professional athletes as well as typical patients who suffer from soft tissue conditions.



*“Specializing in the evaluation, treatment, and rehabilitation of musculoskeletal conditions.”*

## C. Question of the month

### Do chiropractors give advice about nutrition?

Simply stated, Yes. Chiropractors do have training in nutrition throughout their 5 academic year program leading to the degree of Doctor of Chiropractic (D.C.). State laws vary as to the extent of recommendations allowed by a chiropractor but all states allow for chiropractors to provide nutritional advice and supplementation.

While some chiropractors provide extensive evaluation and very specific nutritional advice, we more

commonly see chiropractors provide general nutritional counseling which everyone would benefit from:

1. reduce total fat intake, particularly saturated fats
2. avoid all trans fats
3. increase intake of healthy fats (omega-3)
4. reduce consumption of refined carbohydrates (anything made with white flour, white sugar, white rice)
5. use complex carbohydrates whenever possible
6. eat brightly colored fresh fruits and vegetables as

7. often as possible increase protein from non-meat sources
8. take a good (no additives, no fillers) multivitamin a day

## D. Contact Us

### **Shoreline Spine & Pain Associates, PC**

Guilford, CT 06437  
Phone: 203-453-2001  
Fax: 203-453-2010  
Email: [info@shorelinespineandpain.com](mailto:info@shorelinespineandpain.com)  
Web: [www.shorelinespineandpain.com](http://www.shorelinespineandpain.com)

Please be aware that Drs. Coulis and Furtado are available to give

a 20 minute lunchtime presentation on how a medical physician can best collaborate with a chiropractor. They are also available to give 45 minute grand round type lectures on Introduction to Chiropractic and Non-Surgical Management of Lower Back Pain. Please contact our office to schedule either Dr. Coulis or Dr Furtado to come to your office.

If you would like some additional literature about our office and the services we provide, please contact our office and request our Introduction to the Shoreline Spine & Pain Associates package.