

## The Role of Lab Tests in Examination

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As we enter into a new century and a new era of controlled national health care, the total evaluation of a chiropractic patient is as important as ever. To be in the new health care system and to interact with all types of physicians for referral both to and from each other, makes the role of lab testing a vital part of the chiropractic physician's total evaluation of the patient.

It is the responsibility of every chiropractic practitioner when accepting a patient to perform an appropriate clinical evaluation to assess the patient's current health status and to identify if the patient is a proper subject for chiropractic care. During the initial consultation, while taking the patient's history, the description of the nature of the pain and the effects of both rest and activity on the pain require attentive listening and evaluation of the symptoms presented. Patients presenting with musculoskeletal pain reveal areas of tenderness, postural asymmetry, decreased range of motion, changes in the texture of the tissue, and asymmetry of the involved joints. This may reveal information that on observation from clinical experience will suggest the diagnosis. For example, the onset of muscle pain from fiber tears is sudden and the pain can be reproduced with repetition of a specific movement; pain from repetitive microtrauma to muscles may be insidious and found at rest; pain that awakens a patient at night is suggestive of a bone tumor; pain arising from joint dysfunction is usually unilateral; and when a patient complains of pain that feels like it comes from the bone, it is usually not a well-localized pain.

Clinical experience will determine what diagnostic testing or procedures are indicated following evaluation of the history as presented by the patient. As in all diagnostic procedures requested by a physician, the test is performed to assist in confirmation of a diagnosis or to rule out a condition/diagnosis.

Laboratory diagnosis courses are taught at all accredited chiropractic colleges today. While there are no specific laboratory tests that are elevated with different symptoms of pain in connection with the musculoskeletal system, certain laboratory tests can be quite specific in the differential diagnosis of soft tissue injury and different causes of joint pain:

- A positive C-reactive protein test is an indication of the presence of a joint/connective tissue inflammatory process. The CRP assists in the differential diagnosis of certain inflammatory disorders and may assist in distinguishing spinal pain of organic origin from mechanical origin.
- A determination of the total protein, albumin-globulin ratio, complement fixation tests, and uric acid level can assist to diagnose or rule out rheumatoid arthritis, syphilis and gout.
- Testing for calcium or phosphorus levels assists in determining the presence of metabolic bone disease and inflammatory bony disorders. Alkaline phosphatase and SGOT are elevated with

skeletal muscle disorders/injury.

- Glucose testing is indicated for patients following soft tissue injury and who are at increased risk for diabetes. A referral to an appropriate clinician is indicated with findings indicative of diabetes to determine if the patient has a traumatically induced diabetes, transient diabetes, transient hyperglycemia, or a hormonal or chemically induced condition.
- Urinalysis testing is indicated with a patient presenting with back pain following trauma (to rule out injury to the urinary tract), with clinical findings suggestive of urinary tract infection or with obese individuals with a family history of diabetes.
- A complete blood count will rule out anemia, which depending on its severity will prolong healing of musculoskeletal injuries. With joint dysfunction in early stages of musculoskeletal disease, as with soft tissue injury from trauma, there are characteristic changes in the blood and urine values of the aforementioned test levels that are diagnostically important. The test levels affect the clinical assessment of the patient, if referral is necessary or if additional diagnostic examination is indicated.

In conclusion, the chiropractic physician who intends to be in the main stream of health care, must be able to participate in all facets of evaluation for the proper regime of care for the patient and the interaction of the new health care regime.

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