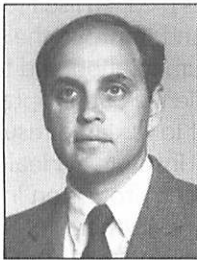


The technique is designed to evaluate, monitor and affect the nervous system and its reflex mechanisms and is not simply a method of moving bones

Activator Methods: An Update and Review

(Part Two of Two)

By Malik Slosberg, D.C.



As previously stated, the method of analysis employed by Activator to determine areas of manipulable joint lesions and whether a corrective adjustive thrust has

been given is based on prone, functional leg length inequalities. Such clinical tests have been used for many decades and have always been controversial.

While it is true that the mechanisms for the way in which biomechanical or neurological dysfunction may manifest in variations in leg length inequality are unclear, yet there is a large body of literature investigating the significance and reproducibility of leg length inequality. In order to appreciate the impact of leg length inequality (LLI) and the probable benefits of correcting such inequality, a look at the recent literature may be helpful.

Leg Length Inequality

Bluestein and D'Amico²⁷ state in a survey of 376 children, conducted at the Growth Study Center for Children's Hospital in Boston, that 95.5% of those tested had significant LLI. They also state that in a study by Pearson of 830 children, 93%

had some degree of lateral hip asymmetry. Furthermore, it was noted in both studies that limb length discrepancies increased with age until full maturity. Lawrence, et al.²⁸ report that in a random sample of 50 freshman chiropractic students with no apparent pathology, LLI of 2 mm or more occurred in 84% and inequalities of greater than 5 mm were found in 46% of the students.

Friberg²⁹ reports that in a study of 1,157 subjects, LLI of 5 mm or more occurred in more than 75% of symptomatic subjects and in only 43.5% of the controls. Additionally, he states that unilateral symptoms of sciatica and hip pain occur significantly more frequently on the long leg side (78.5% vs. 21.5% in sciatica and 88.9% vs. 11.1% in hip pain). He states that LLI has biomechanical, etiological and clinical significance. A major consequence of leg length inequality is its contribution to a compensatory functional scoliosis. Such a postural anomaly results in a degree of lateral bending and rotation which compresses the concave side of the lower lumbar discs posterolaterally and may promote disc degeneration and bulging. Moreover, such functional scoliosis, if untreated, may result in structural, perma-

ment scoliosis. He also states that another author, Morscher, has shown that leg length inequality leads to "remarkable asymmetric increase in the activity of several muscle groups, making it impossible for the patient to maintain a resting standing position." Finally, Friberg states that treatment to reduce the LLI by heel lift on the short leg side results in complete or nearly complete relief of pain in the majority of cases.

Giles²⁶ and Giles and Taylor²⁷, in a series of studies, report that LLI with its associated postural scoliosis results in pelvic obliquity, asymmetric concavities of lumbar vertebral endplates, wedging of the fifth lumbar vertebrae and traction spurs, as well as accelerated facet degeneration, due to asymmetric increase in loads carried by lumbar facets. They state that such asymmetries contribute to alterations in normal gliding movements at such spinal articulations and appear to cause progressive osteoarthritic changes as well as chronic low back pain.

Korr, et al.²⁸ plotted areas of lowered electrical skin resistance over the back. He found subjects whose patterns were stable over a three-week period and then inserted heel lifts in order to cause a form of structural irritation. He noted that subjects reported the onset of pain over a period of several hours following the insertion of the heel lifts, which were associated with developing areas of lowered skin resistance. Such alterations of skin resistance are reported to be due to an increase in regional sympathetic pseudomotor activity.³⁴

Lawrence²⁹ reported that leg length inequality is associated with asymmetrical distribution of weight. He found that subjects with LLI of small amount (1-4 mm) tend to bear more weight on their short leg, while those with LLI of greater difference (6 mm or more) carried more weight on the contralateral side. He believes that the difference in distribution of weight has to do with compensatory mechanisms involving the gluteus medius muscles.

DeBoer, et al.³⁰ reported that prone leg length evaluation was found

to be a reliable clinical measure with statistically significant intra- and inter-examiner reliability. He concludes that the findings indicate that LLI represents a real phenomenon and that this method of evaluating LLI is clinically justified.

The above research indicates that leg length inequality is a frequent, significant and reliable biomechanical finding which may contribute to back pain, hip pain, sciatica and accelerated degeneration. Giles²⁶ states that the vast majority of patients with LLI have no known etiology for this inequality, which arises during normal growth without any apparent pathology.

Safety

The Activator technique, because of its controlled force and displacement, is widely considered to be a

Because all Activator adjustments are performed in a neutral prone position without torquing or tension on articulations, the risk of injury to paraspinal supportive tissues is markedly reduced.

safe, non-traumatic method of chiropractic care. It was chosen as the safest technique by chiropractors in a 1986 nationwide survey.³¹ Nationally, there have been no successful lawsuits against Activator Methods. Because all Activator adjustments are performed in a neutral prone position without torquing or tension on articulations, the risk of injury to paraspinal supportive tissues is markedly reduced. In extremity adjusting, which may require rather forceful and long lever thrusts manually, the Activator technique can provide a safe, specific, controlled, and non-traumatic alternative.

Furthermore, in the cervical re-

gion, where cerebral and brainstem ischemia are considered to be possible catastrophic complications of cervical adjustment³², the critical factors identified for producing damage are rotation and extension of the neck, particularly in combination.³³ Once again, Activator, by adjusting the cervical region in a neutral prone position and by the ability of the chiropractor to narrowly control the force and depth of the penetration of the thrust, markedly reduces the risk of injury.

Conclusions

From the information presented, it is clear that the Activator technique offers a unique combination of attributes that makes it exceptional in chiropractic. Much of its value is due to the dedication, integrity, productivity and proficiency of Activator Methods, Inc., an organization committed to excellence that has pledged itself to research, investigate and improve the technique and its instrumentation and to contribute to the science of chiropractic. The commitment to research resulted in the first National Institute of Health grant to the chiropractic profession in 1985, as well as the enlistment of numerous prominent researchers in related fields as consultants to develop and produce well-designed, valid, worthwhile studies.

The selection of the Activator technique is not simply a choice of convenience. Certainly, the technique is physically less stressful and demanding on both the chiropractor and the patient, and certainly the isolation tests enable the doctor to evaluate the entire spine in a systematic, concise manner, but beyond these popular features are other considerations which enhance its appeal — safety, speed, control, precision, and reproducibility.

In addition, the dynamic characteristics of the isolation tests, the leg length inequalities and the Activator adjusting instrument indicate that the technique is designed to evaluate, monitor and affect the nervous system and its reflex mechanisms and is not simply a method of moving bones. The Activator technique appears to have distinctive biomechanical and neuro-

logical effects which remind us, as chiropractors, that we are not merely impacting joints but are directly influencing the nervous system itself.

About the author: Malik Slosberg, D.C., a 1981 class valedictorian of Life Chiropractic College, is an associate professor at Life Chiropractic College-West. A national instructor with Activator Methods, Inc., he has produced a videotape, "How the Activator Technique Affects the Neurophysiology of Subluxation". Dr. Slosberg, who maintains a part-time practice, has previously published several articles on stress and chiropractic, diagnosis, and the role of explanation in health care. He is enrolled in the master's program in clinical counseling at California State University. For more information, write to him at 230 Leo Ave., San Leandro, California 94577.

References

1. Adams, A.A., and Wood, J., "Forces Used in Selected Chiropractic Adjustments of the Low Back: A Preliminary Study", *Palmer Chiro. College Research Forum*, 1984, Autumn 5-9.
2. Wood, J., and Adams, A.A., "Comparison of Forces Used in Selected Adjustments of the Low Back by Experienced Chiropractors and Chiropractic Students With No Clinical Experience: A Preliminary Study", *Palmer Chiro. College Research Forum*, 1984, Autumn 16-23.
3. Duell, M., "The Force of the Activator Adjusting Instrument", *Digest of Chiro. Econ.*, 1984, 27 (3).
4. Fuhr, A.W., and Smith, D.B., "Accuracy of Piezoelectric Accelerometers Measuring Displacement of a Spinal Adjusting Instrument", *J. Manipulative Physiol Ther*, 1986, 9 (1):15-21.
5. Patton, H.D., Sunstein, J.W., Crill, W.E., and Swanson, P.D., *Introduction to Basic Neurology*, Philadelphia: W.B. Saunders Co., 1976, p. 124.
6. Guyton, A.G., *Textbook of Medical Physiology*, Philadelphia: W.B. Saunders Co., 1976, pp. 680-691.
7. Slosberg, M., "The Effects of Altered Afferent Articular Input on Sensation, Proprioception, Muscle Tone and Sympathetic Reflex Responses", *J. Manipulative Physiol Ther*, accepted for publication, Aug., 1987.
8. Wyke, B.D., "Articular Neurology and Manipulative Therapy", In: Idczak, R.M., ed., *Aspects of Manipulative Therapy*, Carlton: Lincoln Institute of Health Sciences, 1980, pp. 67-71.
9. Korr, I.M., "The Spinal Cord as Organizer of Disease Processes: III. Hyperactivity of Sympathetic Innervation as a Common Factor in Disease", *J Am Osteopath Assoc*, 1979, 79 (4): 232-236.
10. Thabe, H., "Electromyography as a Tool to Document Diagnostic Findings and Therapeutic Results With Somatic Dysfunction in the Upper Cervical and Sacroiliac Joints", *Manual Med* 2: 53-68, 1986.
11. Sandoz, R., "Some Physical Mechanisms and the Effects of Spinal Adjustments", *Annals Swiss Chiro. Assoc.*, 5: 90-141, 1976.
12. Meal, G.M., and Scott, R.A., "Analysis of the Joint Crack by Simultaneous Recording of Sound and Tension", *J Manipulative Physiol Ther*, 9 (3): 189-195, 1986.
13. Kleynhans, A.M., "Complications and Contra-indications to Spinal Manipulation Therapy", In: Haldeman, S., ed., *Modern Developments in the Principles and Practice of Chiropractic*, New York: Appelton-Century-Crofts, 1980, pp. 359-384.
14. Lowther, D.A., "The Effect of Compression and Tension on the Behavior of Connective Tissues", In: Glasgow, ed., *Aspects of Manipulative Therapy*.
15. Slosberg, M., "Activator Methods Isolation Tests", *Today's Chiropractic* 16: (3) 41-43, 1987.
16. Denslow, J.S., and Hassett, C.C., "The Central Excitatory State Associated With Postural Abnormalities", *J Neurophysiol* 5: 393-401, 1942.
17. Denslow, J.S., Korr, I.M., and Krems, A.D., "Quantitative Studies of Chronic Facilitation in Human Motoneuron Pools", *Am J Physiol* 150 (2): 229-238, 1947.
18. Youngquist, M.W., Fuhr, A.W., and Osterbauer, P.J., "Inter-examiner Reliability of an Isolation Test for the Identification of Upper Cervical Subluxation", *J Manipulative Physiol Ther*, accepted for publication.
19. Bolline, P.D., Keating, J.C., Brist, J., and Denver, G., "Inter-examiner Reliability of Palpatory Evaluations of the Lumbar Spine", *AJCM* 1 (1): 5-11.
20. Mior, S.A., King, R.S., McGregor, M., and Bernard, M., "Intra and Inter-examiner reliability of Motion Palpation in the Cervical Spine", *J of CCA* 29 (4): 195-198, 1985.
21. Tarr, R.S., Feely, R.A., Richardson, D.L., Mulloy, A.L., Nelson, K.E., Perrin, W.E., Allin E.F., Efursy, M.E., Greenstein, S.I., and Vatt, R.D., "A Controlled Study of Palpatory Diagnostic Procedures: Assessment of Sensitivity and Specificity", *JAOA* 1987, pp. 296-301.
22. McConnell, D.G., Beal, M.C., Dinnar, U., Goodridge, J.P., Johnston, W.L., Karni, Z., Upledger, J.E., and Blum, G., "Low Agreement of Findings in Neuromusculoskeletal Examination by a Group of Osteopathic Physicians Using Their Own Procedures", *JAOA* 79 (7): 441-450, 1980.
23. Frymoyer, J.W., Phillips, R.B., Newberg, A.H., and MacPherson, B.V., "A Comparative Analysis of the Interpretations of Lumbar Spinal Radiographs by Chiropractors and Medical Doctors", *Spine* 11 (10): 1020-1023, 1986.
24. Sigler, D.C., and Howe, J.W., "Inter- and Intra-examiner Reliability of Upper Cervical X-Ray Marking System", *J Manipulative Physiol Ther* 8 (2): 75-80.
25. Jackson, B.L., Barker, W., Bents, J., and Gambale, A.G., "Inter- and Intra-examiner Reliability of the Upper Cervical X-Ray Marking System: A Second Look", *J Manipulative Physiol Ther* 10 (4): 157-163, 1987.
26. Wyke, B.D., "The Neurology of Joints", *Annals of the Royal College of Surgeons of England*, 41 1967.

continues on page 88

Correction

In the May/June issue of *Today's Chiropractic*, the photos accompanying Dr. William R Borrmann's article, "Metabolic Profiles — Applied Dietary Kinetics", were inadvertently printed upside down on page 40. We extend a sincere apology to Dr. Borrmann and to our readers for the error.

Narrative Report Service

Winther & Company provides a data processing center exclusively for narrative reports. The firm offers chiropractors a choice of all of the latest narrative software — RxProof, The Insurance Adjuster Report Generator, QuickWrite and Narrative Power.

Here's how the service works: The company sends the doctor report forms for each of the narrative systems available. The doctor selects a report form, whether it is for a brief or a full narrative, fills out all of the necessary information and sends it to Winther & Company. Within five to seven working days, the firm sends back to the doctor's office a complete, personalized report, either laser-printed on linen bond paper or on clinic letterhead. A quick turnaround time is guaranteed or your report is free, and all reports are charged on a per page basis.

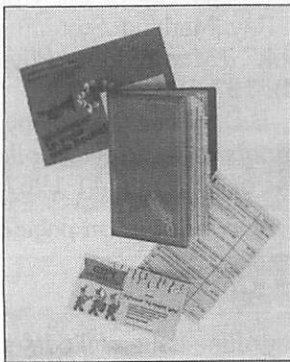
One particularly effective feature of the service lies in a constantly updated library of pre-written text called "Chiro-Codes", which includes choices in diagnosis, prognosis, treatment, opinions and recommendations. The doctor simply completes the form with his patient's information regarding the accident, basic exam and all tests. Then, when it comes time to diagnose or show treatment, he simply refers to a manual, picks one of the codes and marks it on the form, and the computer searches and replaces it with the text which pertains to the code chosen.

For information on the Narrative Report Center, contact Winther & Company, 2062 Bigelow Ave., Simi Valley, Calif. 93065; or call (805) 583-2720, or (800) 383-2720.

Homeowner Welcoming Program

Getting To Know You, which provides a homeowner welcoming program used by many chiropractors nationwide, has introduced a new look in conjunction with its silver anniversary this year. The company's program is sponsored by local chiropractors as well as other merchants and professionals. The vehicle for this program, which serves 28 states, is a UPS-delivered personal phone/address directory. In honor of the anniversary, the directories now sport a silver cover, the first color cover change in 25 years.

The directories are accompanied by gift certificates from the sponsoring merchants and professionals. Information about each advertiser is printed in the directory, giving the sponsor a continuous piece of exposure in the family's new home. Only one chiropractor is listed per directory. The program helps new homeowners find out about the community, exposing them to the sponsors' services and products. The program provides an effective method for



targeting a major source of new patients for chiropractors. For more information, write to Roseann Ekert, Getting To Know You, 115 S. Service Road, P.O. Box 1400, Westbury, New York 11590, or call her at (800) 645-6376, or in New York, (800) 632-9400.

Slosberg

continues from page 85

27. Blustein, S.M., and D'Amico, "Limb Length Discrepancy Identification, Clinical Significance and Management", *J Am Pod Med Assoc* 75 (4): 199-206, 1985.

28. Lawrence, D., Pugh, J., Tasharski, C., and Heinze, W., "Evaluation of a Radiographic Method Determining Short Leg Mensuration", *ACA J of Chiro* 8 (6) 49-51, 1984.

29. Friberg, O., "Clinical Symptoms and Biomechanics of Lumbar Spine and Hip Joint in Leg Length Inequality", *Spine* 8 (6) 643-651, 1983.

30. Giles, L.G.F., "Lumbosacral Facetal 'Joint Angles' Associated With Leg Length Instability", *Rheumatology and Rehabilitation* 20: 233-238, 1981.

31. Giles, L.G.F., and Taylor, J.R., "Low Back Pain Associated With Leg Length Inequality", *Spine* 6 (5): 510-521, 1981.

32. Giles, L.G.F., and Taylor, J.R., "Lumbar Spine Structural Changes Associated With Leg Length Inequality", *Spine* 7 (2): 159-162, 1982.

33. Korr, I.M., Wright, H.M., and Thomas, P.E., "Effects of Experimental Myofascial Insults on Cutaneous Patterns of Sympathetic Activity in Man", *Acta Neuroveg* 17:77-96, 1958.

34. Korr, I.M., Thomas, P.E., and Wright, H.M., "Patterns of Electrical Skin Resistance in Man", *Acta Neuroveg* 17:77-96, 1958.

35. Riley, L.H., and Richter, C.P., "Uses of the Electrical Skin Resistance Method in the Study of Patients With Neck and Upper Extremity Pain", *The Johns Hopkins Med Journal* 137: 69-74, 1975.

36. Lawrence, D., "Lateralization of Weight in the Presence of Structural Short Leg: A Preliminary Report", *J Manipulative Physiol Ther* 7 (2): 105-108, 1984.

37. DeBoer, K.F., Harmon, R.O., Savoie, S., and Tuttle, C.D., "Inter- and Intra-Examiner Reliability of Leg-Length Differential Measurement: A Preliminary Report", *J Manipulative Physiol Ther* 6 (2): 61-65, 1983.

38. Olsen, C., ed., "Survey Report: Safest to Use Technique", *The Activator Update* 2 (1): 10, 1987.

39. Haldeman, S., "Spinal Manipulative Therapy: A Status Report", *Clin Orthop and Rel Res* 179: 62-70, 1983.

40. Terrett, A.G., "Vascular Accidents From Cervical Spine Manipulation: Report on 107 Cases", *J Australian Chiropractors Assoc* 17 (1): 15-24, 1987.

41. Terrett, A.G., "Vascular Accidents From Cervical Spine Manipulation: The Mechanisms", *J Australian Chiropractors Assoc* 17 (4): 131-144, 1987.