

1 **Clinical Practice Guideline:** **Rolfing**
 2
 3 **Date of Implementation:** **July 13, 2006**
 4
 5 **Product:** **Specialty**
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7
 8 **GUIDELINES**

9 American Specialty Health – Specialty (ASH) considers Rolfing medically necessary as a
 10 form of soft tissue mobilization for treatment of soft tissues including muscle and fascia.
 11

12 **DESCRIPTION/BACKGROUND**

13 Rolfing is the popular name used for structural integration, a manual therapy of bodywork
 14 that is based on the idea that human function is improved when the segments of the body
 15 are properly aligned. This concept assumes that over time the use of incorrect postures and
 16 body alignments when walking, sitting, or doing other activities results in changes in the
 17 fascia; it is these changes that result in pain and tension in the body. Fascia is connective
 18 tissue mostly made of collagen that covers every muscle, bone, vessel, nerve, and organ in
 19 the body. Additionally, in structural integration, fascia plays a key role in maintaining
 20 posture and proper movement. The proposed goal of Rolfing is to release the body from
 21 these learned patterns of movement that are causing the dysfunction and pain. Proponents
 22 of Rolfing purport that through soft tissue manipulation via deep tissue massage and
 23 myofascial release, a therapist can reorganize the fascia to allow the muscles to relax. The
 24 aim of Rolfing is to integrate parts of the body such that the alignment of the joints results
 25 in the most efficient movement within the earth’s gravitational force. It is claimed that a
 26 general Rolfing intervention realigns the patient’s body, and the practitioner prescribes
 27 new modes of movement. Rolfing practitioners use pressure applied by the fingers,
 28 knuckles, and elbows to break the bonds of the fascia so that they can be reorganized.
 29

30 The basic certification process for Rolfing in the U.S. takes place at the Rolf Institute of
 31 Structural Integration in Boulder, Colorado. The process takes one to two years
 32 (approximately 700 hours), at the end of which one achieves basic certification as a Rolfer.
 33 For advanced certification, more training is required.
 34

35 Rolfing (structural integration) was developed by Dr. Ida Rolf in the 1950s. Dr. Rolf
 36 received her PhD in biological chemistry from Columbia University in 1920 and then
 37 worked as a researcher at the Rockefeller Institute throughout the 1920s. She became
 38 interested in the human body after observing those around her suffer from pain syndromes
 39 that modern medicine could not cure. She gained her first exposure to manipulation when
 40 she was treated by an osteopathic physician for a respiratory condition, whereupon the
 41 doctor performed manipulations to reposition a rib that had been displaced from an earlier
 42 injury. However, she disagreed with what she saw as an osteopathic emphasis on solely

1 freeing joint restrictions, as she felt this left out the crucial role of soft tissue in body
2 functioning. Dr. Rolf also familiarized herself with chiropractic, the Alexander technique,
3 and the Feldenkrais method.

4
5 In the 1950s, Dr. Rolf used these concepts to create a ten-session sequence of
6 manipulations she called structural integration. In 1971, she founded the Rolf Institute of
7 Structural Integration, electing some of her students to teach and carry out her work
8 through this institute.

9 10 **EVIDENCE REVIEW**

11 Two small randomized controlled trials (RCTs) were undertaken in 1988 by Cottingham
12 et al. to evaluate patients with pelvic tilt. The first study examined the use of Rolwing pelvic
13 lift on parasympathetic tone. The outcome measure for this study was the amplitude of the
14 respiratory sinus arrhythmia (RSA). The pelvic lift is a soft tissue manipulation involving
15 a combination of posterior tilting and pelvic traction with moderate pressure to the
16 epigastrium. Their results showed that the pelvic lift technique produced significant
17 autonomic nervous system response in younger patients. The second study examined the
18 impact of Rolwing soft tissue manipulation on healthy men with a pelvic tilt, and once again
19 their outcome measure was the amplitude of the RSA.

20
21 One systematic review of the literature on Rolwing and Rolwing techniques was undertaken
22 by Jones (2004). She examined both RCTs by Cottingham et al. as well as the case series
23 by Perry et al. Jones points out that the clinical significance of RSA amplitude and vagal
24 tone (outcome measures for the Cottingham et al. studies) has not been established in the
25 medical literature. As such the results of these two RCTs are limited. In addition, she points
26 out the lack of (and need for) clinical studies on Rolwing in a symptomatic population
27 examining clinically relevant outcomes such as pain.

28
29 James et al. (2009) investigated the effect of rolwing structural integration (RSI) in neck
30 motion and pain levels of 31 subjects who received RSI. This investigation demonstrated
31 that the basic 10 sessions of RSI, when applied by a physical therapist with advanced RSI
32 certification, is capable of significantly decreasing pain and increasing AROM in adult
33 subjects, male and female, with complaints of cervical spine dysfunction regardless of age.
34 Jacobson (2011) reviewed the clinical practice of Structural Integration (SI), an alternative
35 method of soft-tissue manipulation and sensorimotor education, and to summarize the
36 evidence to date for mechanism and clinical efficacy. According to the author, limited
37 preliminary evidence exists for improvements in neuromotor coordination, sensory
38 processing, self-concept, and vagal tone, and for reductions in state anxiety. Preliminary,
39 small sample clinical studies with cerebral palsy, chronic musculoskeletal pain, impaired
40 balance, and chronic fatigue syndrome have reported improvements in gait, pain and range-
41 of-motion, impaired balance, functional status, and well-being. Adverse events are thought
42 to be mild and transient, although survey data are not available. Contraindications are

1 thought to be the same as for massage. The author concludes that evidence for clinical
2 effectiveness and hypothesized mechanisms is severely limited by small sample sizes and
3 absence of control arms, thus more adequate research in warranted.

4
5 There was one case series on Rolfing (Perry et al., 1981) that demonstrated Rolfing’s
6 efficacious effects on the walking and gait abilities of children with cerebral palsy. They
7 showed that Rolfing led to improved performance in range of motion for the hip, knee, and
8 ankle for those with mild cerebral palsy. Hansen et al. (2014) aimed to document gait
9 characteristics of two children with cerebral palsy and the effects of myofascial structural
10 integration (Rolfing) on gait patterns. Children received 3 months of weekly therapy
11 sessions by an experienced practitioner. Gait parameters were recorded at baseline and
12 after treatment using an electronic walkway. Children with cerebral palsy demonstrated
13 abnormal velocity and cadence, decreased step length and single support times, and
14 increased double support time. After treatment, both children demonstrated improvement
15 for 3 months in cadence and double support time. The objective gait analyses demonstrated
16 temporary improvements after myofascial structural integration in children with spastic
17 cerebral palsy. These outcomes resulted in another study.

18
19 Loi et al. (2015) examined myofascial structural integration therapy on gross motor
20 function and gait of young children with spastic cerebral palsy in a RCT. Participants
21 ($N=29$) were enrolled in a randomized controlled trial. The main outcome was the Gross
22 Motor Function Measure-66 assessed at 3-month intervals. Gait ($n=8$) was assessed using
23 the GAITRite® electronic walkway. Parents completed a survey at study conclusion.
24 Comparing Treatment ($n=15$) and Waitlist-Control groups ($n=9$), authors found a
25 significant main effect of time but no effect of group or time \times group interaction. The
26 pooled sample ($n=27$) showed a main effect of time, but no significantly greater change
27 after treatment than between other assessments. Foot length on the affected side increased
28 significantly after treatment, likely indicating improvement in the children's ability to
29 approach a heel strike. Parent surveys indicated satisfaction and improvements in the
30 children's quality of movement. MSI did not increase the rate of motor skill development
31 but was associated with improvement in gait quality.

32 33 **PRACTITIONER SCOPE AND TRAINING**

34 Practitioners should practice only in the areas in which they are competent based on their
35 education training and experience. Levels of education, experience, and proficiency may
36 vary among individual practitioners. It is ethically and legally incumbent on a practitioner
37 to determine where they have the knowledge and skills necessary to perform such services.

38
39 It is best practice for the practitioner to appropriately render services to a patient only if
40 they are trained, equally skilled, and adequately competent to deliver a service compared
41 to others trained to perform the same procedure. If the service would be most competently

1 delivered by another health care practitioner who has more skill and expert training, it
2 would be best practice to refer the patient to the more expert practitioner.

3
4 Best practice can be defined as a clinical, scientific, or professional technique, method, or
5 process that is typically evidence-based and consensus driven and is recognized by a
6 majority of professionals in a particular field as more effective at delivering a particular
7 outcome than any other practice (Joint Commission International Accreditation Standards
8 for Hospitals, 2020).

9
10 Depending on the practitioner’s scope of practice, training, and experience, a member’s
11 condition and/or symptoms during examination or the course of treatment may indicate the
12 need for referral to another practitioner or even emergency care. In such cases it is prudent
13 for the practitioner to refer the member for appropriate co-management (e.g., to their
14 primary care physician) or if immediate emergency care is warranted, to contact 911 as
15 appropriate. See the *Managing Medical Emergencies (CPG 159 – S)* clinical practice
16 guideline for information.

17 **References**

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- 24 **Other Resources**
25 The Rolf Institute of Structural Integration Website: <https://www.rolf.org/rolwing.php>