



## A Study on Apparel Design for Chiropractic Training

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### **Introduction**

In severe cases of spinal misalignment due to wrong back posture during adolescence or focusing on work, modern people can have back pain. Such a symptom is commonly referred to as scoliosis and it already became one of the lifestyle diseases. Hence, the purpose of the present study was to develop a functional musculoskeletal correction wear that can help with maintaining a correct posture by relaxing tonic muscles and maximizing the tension of the relaxed muscle using the principle of sports taping.

### **Literature Review**

According to Park, et al. (2012), Stated that the reason for the right latissimus dorsi muscle activity of the patients with idiopathic scoliosis lower than that of the normal subjects throughout. The length of the muscle and the muscle activities of the right thoracolumbar fascia and right gluteus medius muscle higher than that of the normal person were due to the weakness of the right latissimus dorsi muscle and the tension of the right psoas muscle. The study developed functional musculoskeletal correction wear using the principle of sports taping that focuses tension on the right latissimus dorsi muscle while stretching spine line in the vertical direction focusing on scoliosis and the difference in muscle strength between the right and left peripheral muscles, i.e., the right latissimus dorsi muscle.

### **Research Method**

Market research for design development was conducted at department stores and specialty road shops separately. Department stores were visited on weekdays when the store is not crowded, and specialty road shops were visited at around three o'clock on weekdays after checking their opening, lunch, and closing times. Since the apparel should not interfere with exercise movements while maintaining the body shape, the survey was carried out mostly on yoga and lifestyle training apparel focusing on elasticity and percentage of blending fiber. A camera and audio recorder were prepared and took pictures of clothing tags that show the ratio of polyester and spandex while trying on and checking products at the stores. Data were collected by asking the staff at road specialty shops who has more professional knowledge about the advantages and functions of the existing products and recording their answers. Point color schemes in black color family in which body shapes can look beautiful were mostly checked. Due to the design characteristics that have to maintain the spine, the designs of all-in-one products that can maintain the upper and lower torsos were checked at underwear stores.

**Results & Discussion**

The existing products were evaluated for their designs to be adopted including the material, integrated into the new design, and then modified and supplemented, and the following chiropractic apparel design was drawn (Table 1). An all-in-one design that wraps around the hips and upper thighs for easy counterbalancing between the upper and lower body was chosen. A design with an accent line that makes body shape looks beautiful and Used compression wear material that is comfortable for activities and presses tight against the skin. Activates the muscle activities of latissimus dorsi muscle using taping method, and provides tension to maintain correct posture of round back and shoulders. In conclusion, prevention, exercise, and stretching are important for scoliosis and sound posture for the loin should be constantly maintained. To that end, not only the proper use of chairs but also apparel that is worn all the time can be helpful.

Table 1. Apparel design for chiropractic training

1 All-in-one design	2 Accent line	3 Materials	4 Taping
 <p>Front</p>  <p>Crotch</p>	 <p>Side line</p>  <p>Waist line</p>	 <p>Shoulder &amp; Side</p>  <p>B3807 Body</p>  <p>B3811 Lining</p>	  <p>Back</p>

**Reference**

Park, Y., Woo, B., Kim, J., & Lim, Y. (2012). Development of Wearing of Musculo-Skeletal Functional Garment for Adolescents' Idiopathic Scoliosis. *Korean Journal of Sport Biomechanics*, 22(3), 365-372.