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## 高齢女性のかぶり式半袖上衣の脱衣動作における 肩関節の動き

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### Shoulder Joint Movements in Elderly while Taking off Pullover Short-Sleeved Shirts

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#### Abstract

The motion of putting on and taking off clothes is performed daily, so clothing that can be changed easily should play an important role in the independence of the elderly. We analyzed the shoulder joint motion of 19 healthy elderly women (aged 70 to 78 years) while taking off two kinds of pullover short-sleeved shirts (T-shirt and tank top), and investigated the features of four methods of taking off shirts. Method 1 (pulling their arms through the sleeves first) required pulling their arms tightly, and method 2 (raising the front hem and lifting off the shirt) was found to be the easiest method for taking off a shirt in subjects with no mobility problems in the shoulder joints. Method 3 (raising the front hem and pulling their arms through) and method 4 (holding the back collar and pulling the shirt forward) did not require subjects to flex the shoulder joints to extreme angles. In addition, forward flexion and abduction of the shoulder joints while taking off T-shirts using method 2 were wider than with tank tops. Our results showed that the angle required of the shoulder joint while taking off shirts differs according to the four methods examined.

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