

Table S1. Descriptors for the search strategy

Key words	Boolean operators	
	AND	NOT
Biofeedback	Orthopedics	Neurology
“EMG biofeedback”	“Exercise therapy”	“Neurological rehabilitation”
“EMG feedback”	Physiotherapy	Stroke
“Electromyographic feedback”	“Physical therapy”	Incontinence
“Electromyographic biofeedback”	Rehabilitation	
“Surface EMG biofeedback”	Recovery	
“Surface electromyographic biofeedback”	Therapeutic	
“Sensory feedback”	Therapeutical Training Exercise Strengthening	

Table S2. Search string in PubMed

Database	Search string
PubMed	(("biofeedback, psychology"[MeSH Terms] OR "biofeedback"[Title/Abstract] OR ("emg biofeedback"[Title/Abstract] OR "emg feedback"[Title/Abstract]) OR ("electromyographic feedback"[Title/Abstract] OR "electromyographic biofeedback"[Title/Abstract]) OR ("surface emg biofeedback"[Title/Abstract] OR "surface electromyographic feedback"[All Fields]) OR "sensory feedback"[Title/Abstract]) AND ("orthopedics"[MeSH Terms] OR "exercise therapy"[MeSH Terms] OR ("physiotherapy"[Title/Abstract] OR "physical therapy"[Title/Abstract] OR "rehabilitation"[Title/Abstract] OR "recovery"[Title/Abstract]) OR ("therapeutic"[Title/Abstract] OR "therapeutical"[Title/Abstract]) OR ("training"[Title/Abstract] OR "exercise"[Title/Abstract] OR "strengthening"[Title/Abstract]))) NOT ("neurology"[MeSH Major Topic] OR "neurological rehabilitation"[MeSH Terms] OR "stroke"[Title/Abstract] OR "incontinence"[Title/Abstract])

Table S3. Inclusion criteria

Criteria	Explanation
Type of Study	<ul style="list-style-type: none">• Studies with a Pre-Post-Test Design• Randomized Controlled Trials• Quasi-experimental studies• Controlled clinical trials
Language	<ul style="list-style-type: none">• Studies published in English or German
Publication Date	<ul style="list-style-type: none">• No restrictions on publication date to include a comprehensive range of studies
Population	<ul style="list-style-type: none">• Studies involving human participants of any age without neurological disorders
Intervention	<ul style="list-style-type: none">• Studies explicitly compared an intervention with EMG feedback to the same intervention without EMG feedback• Intervention duration of at least 2 weeks
Outcomes	<p>Studies reporting on at least one of the following outcomes:</p> <ul style="list-style-type: none">• Muscle activation• Muscle strength• Functionality• Pain perception• Joint range of motion• Rehabilitation effectiveness (e.g., activities of daily living)
Settings	<ul style="list-style-type: none">• Studies conducted in clinical, sports, or rehabilitation settings

Table S4. Coding scheme for data extraction

Item	Explanation
Study information	<ul style="list-style-type: none">• Authors• Year of publication• Title of the study
Participants	<ul style="list-style-type: none">• Number of participants per group• Inclusion criteria
Intervention	<ul style="list-style-type: none">• Type of treatment• Duration of intervention• Frequency of training sessions• Muscles used for EMG feedback training
EMG feedback specifics	<ul style="list-style-type: none">• EMG feedback device• Method of feedback delivery (e.g., visual, auditory)
Outcome measures	<ul style="list-style-type: none">• Dependent variables assessed (e.g., muscle activation, strength, functionality, pain perception, joint range of motion)
Results	<ul style="list-style-type: none">• Data for effect size calculations