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CRYOTHERAPY IMPAIRS PROPRIOCEPTION FUNCTION?

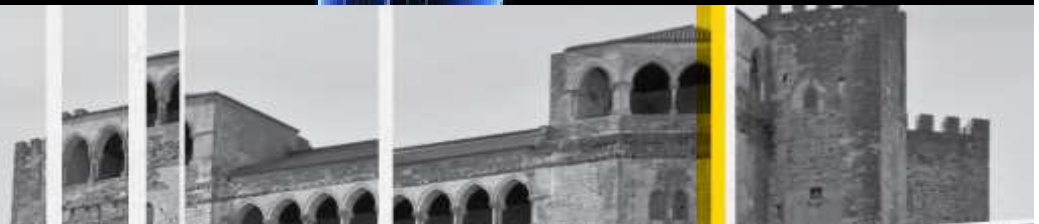
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IMPAIRS



PROPRIOCEPTION

CRYOTHERAPY

WallpapersKing.com

Cryotherapy over a joint



**↓ Nerve conduction velocity (21)
proprioceptive changes(8-13).**



**AND...
Being proprioception responsible for joint stability
(8),**

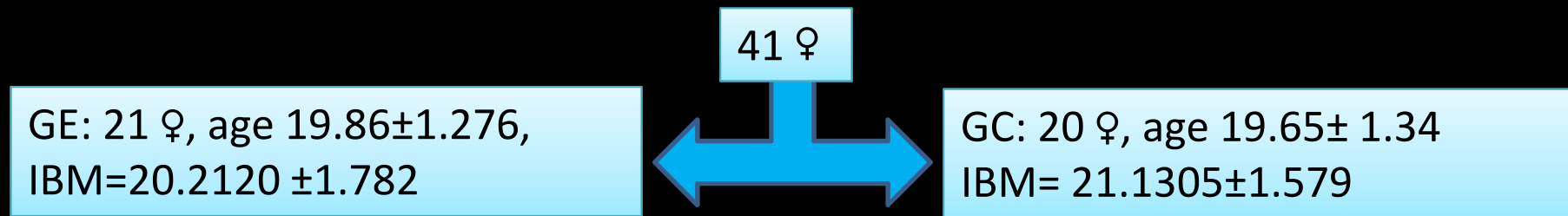


It's important to confirm this effect

OUR FIRST GOAL

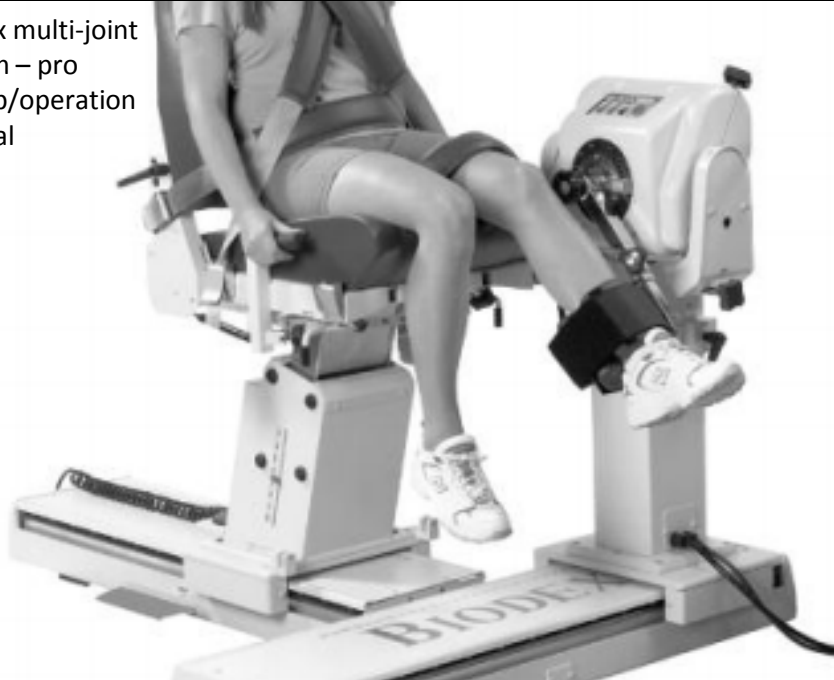
**to determine if cryotherapy
impairs proprioceptive acuity**

METHODS



METHODS

Biodex multi-joint
system – pro
| Setup/operation
manual



**Fig 1 - Biodex system 3 isokinetics
dynamometer**

Joint position sense evaluation



<http://theelectricaldepot.com/>

Fig 2 - 3M Infrared Thermometer

Temperature assessment

RESULTS

Table I - NPA error comparison between experimental and control group, for 15° and 45°

	Group	N	Media	Exp vs Con	DP	p
Erro15_T0_media	Exp	21	5.10	↓	2.997	.334
	Con	20	5.97		3.186	
Erro15_T1_media	Exp	21	4.24	↑	2.241	.610
	Con	20	3.82		1.772	
Erro45_T0_media	Exp	21	5.38	↑	2.717	.170
	Con	20	4.22		1.680	
Erro45_T1_media	Exp	21	5.06	↑	2.592	.069
	Con	20	3.72		2.612	

The error average was always greater in the experimental group at both angular positions, exception T0 at 15°

Note: p value it's statistically significant if $p < 0,05$

RESULTS

Table II – Error comparison within each group

		N	média	DP	p
Experimental group	Error15_T0_mean	21	5.10	2.997	.134
	Error15_T1_mean	21	4.24	2.241	
	Error45_T0_mean	21	5.38	2.717	.791
	Error45_T1_mean	21	5.06	2.592	
Control group	Error15_T0_mean	20	5.97	3.186	.000
	Error15_T1_mean	20	3.82	1.772	
	Error45_T0_mean	20	4.22	1.680	.245
	Error45_T1_mean	20	3.72	2.612	

Proprioception
ensured by other
proximal areas

Mecanoreceptors

Type of Movement
Vs
Receptors type

Note: p value it's statistically significant if $p < 0,05$

CONCLUDING...

No reduction of proprioception was found after 15 minutes ice application.

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EM SAÚDE

THANK YOU FOR
YOUR ATTENTION