

## Risk Assessment of NZ Manufacturing's 'Six-Metre-Long-Belt-Slider StetchCordz'

### Background

Stroud Masters Swimming Club (SMSC) is a swimming club for adult swimmers (18 years plus). A request was made by the morning session swimmers in 2011 to purchase one or more sets of StretchCordz (resistance training aid).

The committee then asked Richard Searle (RS), IEng, FIGEM, FCIPHE, and qualified IOSH (Institution of Occupational Safety and Health) / NEBOSH professional to carry out a risk assessment of the product on their behalf.

### How was the risk assessment carried out?

RS liaised with Colleen Dunlap, NZ Manufacturing Inc, (<https://nzcordz.com/>) and also consulted the product's user guide and Innovative Stretchcord (sic) Training for Swimmers by Alan W Arata, Ph.D (ISBN 1-4259-2084-5) and used this, together with his own experience of both the product and the facilities used by SMSC to identify the potential hazards. RS utilised the Health & Safety Executives 'five steps to risk assessment' in order to identify the hazards and produce the requested risk assessment.

RS identified who would be harmed by the hazards and how and together with what steps could be put in place to eliminate or minimise the risks identified.

For each hazard identified, RS detailed what controls, if any, were in place to manage them. RS then evaluated these controls against best practise in order to minimise any risk as far as was reasonable and practicable. Where any existing controls (e.g. use of loan StretchCordz) were not considered sufficient, RS identified additional measures that needed to be adopted in order to control or eliminate the risk and has included these within the risk assessment.

RS advised that SMSC should review, and where appropriate, update the risk assessment annually or straightaway if risks not previously considered were identified – including any changes in the use, method of attachment and misuse.



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Hazards	Who might be harmed?	How might they be harmed?	What are you already doing?	What action / further action is necessary?	Action by who?	Action by when?	Completed? (Yes/no)
<b>Failure of surgical tubing through normal use / old age.</b>	Spectators Other swimmers	Snapped surgical cord – due to over stretching - flailing back towards the point of attachment.	Following risk assessment.	None. Use of recommended product - NZ Manufacturing Inc's StretchCordz - utilise an internal safety cord that runs the entire length of the tube and acts as a 'limiter', so that the tubing cannot be overstretched and also as a safety feature in the event of breakage of the tubing.  If using another manufacturer's product an additional risk assessment will need to be carried out	N/a	N/a	Yes
<b>Failure of surgical tubing through normal use / old age.</b>	Swimmer using product	Catastrophic failure will result in the immediate reduction of resistance and could lead to muscle skeletal injury.	Following risk assessment.	Endorse webbing with purchase date.	Committee	Before product use.	Yes
				Check StretchCordz for damage to webbing for damage and surgical tubing for cracks, tears etc	Session coach / NRASTC observer to inspect StretchCordz.	Weekly (or prior to use if used less frequently – to be recorded in logbook.	Yes
				Consider removing from service after 10 years.  Guidance on product use and care can be found at <a href="https://nzcordz.com/product-use-and-care/">https://nzcordz.com/product-use-and-care/</a>	Committee	2021	N/a until 2021
<b>Failure of attachment point.</b>	Swimmer using StretchCordz and/or others within pool or on poolside.	Flailing surgical cord and stainless-steel lane rope securing bolt (used as point of attachment).	Following risk assessment.	Use suitable chlorine resistance Safety Leash secured between two lane rope securing bolts (points of attachment). Should one lane rope securing bolt fail (pulled from substrate) the other will control the risk (also see Failure of surgical tubing through normal use / old age)	Single Safety Leash produced by Richard Searle and tested 20-4-2011.	Session coach / NRASTC observer to be briefed on use <u>and</u> to ensure StretchCordz are not used without Safety Leash	Yes
<b>Collision with other swimmers.</b>	Swimmer(s) in same lane as swimmer using StretchCordz	Swimmer using StretchCordz swimming back towards point of attachment.	Following risk assessment.	Swimmers waiting to use StretchCordz should be in neighbouring lane or on poolside. Where this is not practical swimmers shall remain within 2m of point of attachment.	Session coach / (NRASTC) observer to ensure product is correctly used.	N/a	Yes

<b>Overuse injury - (use of correctly rated product)</b>	Swimmer using product	Prolonged use of correct product.	Following risk assessment.	Limit use. Ensure warm up before use and swim down after use.	Committee to look at purchasing Green and Yellow resistance version.  Session coach to ensure StretchCordz match swimmers' ability.	Before product use.	Yes
<b>Overuse Injury - use of incorrectly rated product</b>	Swimmer using product	Use of excessive resistance product	Following risk assessment.	Use of Yellow 2.2- 6.3kg or lower resistance StretchCordz for less strong swimmers.	Committee to look at purchasing Green and Yellow resistance version.  Session coach to ensure StretchCordz match swimmers ability.	Before product use.	Yes
<b>Rope Burn</b>	Swimmer using product	Abrasion with neighbouring lane rope.	Following risk assessment.	Ensure a 'control loop' / karabiner is located in centre of the Safety Leash (see Failure of attachment point).	Session coach / National Rescue Award for Swimming Teachers and Coaches (NRASTC) observer to ensure product is correctly used.		Yes
<b>Strangulation</b>	Swimmer using product	Swimmer gets entangled with StretchCordz	Following risk assessment.	None	N/a	N/a	Yes

Notes - NRASTC - National Rescue Award for Swimming Teachers and Coaches.

## NZ Manufacturing's 'Six-Metre-Long-Belt-Slider StetchCordz' User Instructions

### General

Only session coaches and swimmers instructed on the correct set up and use of NZ Manufacturing's 'Six-Metre-Long-Belt-Slider StetchCordz' are authorised to use this equipment.

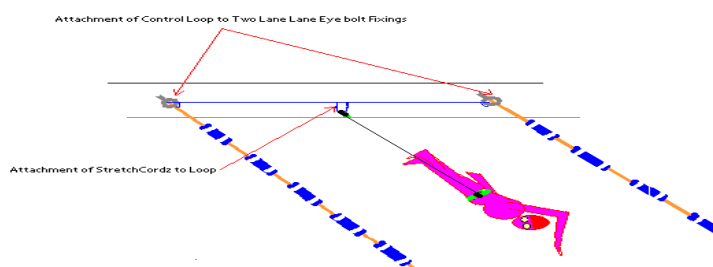


### Set up and Use

The NZ Manufacturing's 'Six-Metre-Long-Belt-Slider StetchCordz' should be;

- Secured to centre 'control loop' / karabiner of dedicated and chlorine resistant 'Safety Leash'. [See diagram below](#)
- Secured by means of a 'Safety Leash' with a minimum of two fixing points e.g. two lane ropes securing eyes. [See diagram below](#)
- Used by one swimmer at a time. Swimmers waiting to use StretchCordz should be in neighbouring lane or on poolside. Where this is not practical swimmers shall remain within 2m of point of attachment.
- Selected in relation to the swimmer's strength and ability.
- Supervised by the session coach and/or a National Rescue Award for Swimming Teachers and Coaches (NRASTC) qualified observer.

Where a swimmer's resistance rating falls between StretchCordz (one set to easy, another to hard /hard) suitable chlorine resistance 'extension' (see Safety Leash) may be employed with the greater resistance set. Where used the 'extension' should be secured between the Safety Leash's 'control loop' and the StretchCordz' fixing loop using, for instance, two karabiners.



### Care and Maintenance

StretchCordz should be;

- Stored out of ultraviolet (UV) light in the bag provided.
- Rinsed with fresh water after use to remove the chlorine.
- Occasionally wiped down - surgical tubing only - with a suitable rubber protector such as ArmorAll to ensure the life of the tubing. *A white chalky texture on the surface of the surgical tubing is a good indicator of the need to re-protect the StretchCordz.*

