

# The Consensus on Exercise Reporting Template (CERT): Guideline Development & Implementation

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**BACKGROUND:** Exercise is recommended for the management of many health conditions. Exercise interventions are often incompletely described in research reports & this hampers evaluation of results, replication in research & implementation into practice.

Interpretation of clinical trials, efficient use of research resources & uptake of effective exercise programs into routine care would be facilitated if exercise programs were reported in a comprehensive manner.

**AIM:** To develop a standardized method for reporting exercise programs: the Consensus on Exercise Reporting Template

## METHODS:

- Method framework recommended by the EQUATOR Network ([www.equator.org](http://www.equator.org))
- Participants: international exercise experts
- Survey: items based on a 2012 study. Three sequential online Delphi rounds.
- Consensus rules: defined a priori as >70% of respondents rating an item 7 or above, on the 0-10 scale. Items were excluded if > 70% of respondents rated an item as 3 or below.

**RESULTS :** International exercise experts reached a high level of consensus on a minimum set of key items considered necessary for reporting replicable exercise programs.

The CERT contains 16 items under seven categories: materials, provider, delivery, location, dosage, tailoring & compliance

## DISCUSSION & RECOMMENDATIONS

We recommend the CERT be used by:

- journals – for explicit reporting & manuscript submission
- authors – to structure reports
- reviewers & editors - to assess completeness of reporting
- researchers & clinicians - to assist with interpretation of published data
- educators – a learning tool

To overcome word limits the CERT can be included as online appendices. The Explanation & Elaboration Statement provides guidance for CERT implementation.

Slade SC, Keating JL. *BJSM* 2012;46:1110-3  
 Slade et al. *Phys Ther.* 2016; 96(10): 1514-1524  
 Slade et al. *BJSM.* 2016; 50(23): 1428-1437  
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## CERT ✓ Consensus on Exercise Reporting Template

A Checklist for what to include when reporting exercise programs

Section/Topic	Item #	Checklist item	Location **	
			Primary paper (page, table, appendix)	† Other (paper or protocol, website (URL))
WHAT: materials	1	Detailed description of the type of exercise equipment (e.g. weights, exercise equipment such as machines, treadmill, bicycle ergometer etc)		
WHO: provider	2	Detailed description of the qualifications, teaching/supervising expertise, and/or training undertaken by the exercise instructor		
HOW: delivery	3	Describe whether exercises are performed individually or in a group		
	4	Describe whether exercises are supervised or unsupervised and how they are delivered		
	5	Detailed description of how adherence to exercise is measured and reported		
	6	Detailed description of motivation strategies		
	7	Detailed description how and why an exercise program is progressed (e.g. decision rules, numbers of repetitions, resistance, load, speed etc)		
	8	Detailed description of each exercise to enable replication (e.g. photographs, illustrations)		
	9	Detailed description of any home program component (e.g. other exercises, stretching etc)		
	10	Describe whether there are any non-exercise components (e.g. education, cognitive behavioural therapy, massage etc)		
WHERE: location	11	Describe the type and number of adverse events that occur during exercise		
WHEN, HOW MUCH: dosage	12	Describe the setting in which the exercises are performed		
TAILORING: what, how	13	Detailed description of the exercise intervention including, but not limited to, number of exercise repetitions/sets/sessions, session duration, intervention/program duration etc		
	14a	Describe whether the exercises are generic (one size fits all) or tailored whether tailored to the individual		
	14b	Detailed description of how exercises are tailored to the individual		
HOW WELL: planned, actual	15	Describe the decision rule for determining the starting level at which people commence an exercise program (such as beginner, intermediate, advanced etc)		
	16a	Describe how adherence or fidelity to the exercise intervention is assessed/measured		
	16b	Describe the extent to which the intervention was delivered as planned		