

## The Short Active Lives Survey: what it is and how to use it

The Short Active Lives Survey (SALS) is a set of questions used to measure adult physical activity levels. This guide is for anyone wishing to find out more about SALS or use it within research or evaluation.

The guide contains three parts. **Part 1** explains the background, development and purpose of SALS. **Part 2** provides guidance on how to use it. **Part 3** covers common questions about completing SALS.

If you have any questions or comments on using SALS you can email us at [research@sportengland.org](mailto:research@sportengland.org).

### Part 1: Background, development and purpose of the Short Active Lives Survey

<b>What is SALS?</b>	<p>The Short Active Lives Survey (SALS) is a set of questions used to measure adult physical activity levels, typically as part of evaluation or research. It is free to use by anyone interested in measuring physical activity.</p> <p>Use these links to <a href="#">read the SALS questions</a> or to <a href="#">try the survey for yourself</a>.</p> <p>SALS has been academically tested and validated against other recognised measures, and is a credible tool that can be used within project evaluations or as part of larger population-level surveys.</p> <p>Since January 2018 it has been Sport England's recommended physical activity measurement tool for its funded projects.</p>
<b>Why was SALS developed?</b>	<p>SALS was developed in response to the Government and Sport England's aim to increase the number of people who are physically <i>active</i> and reduce the number of people who are physically <i>inactive</i>, in line with the UK Chief Medical Officers' (CMO) Physical Activity Guidelines. <i>Active</i> means they achieve the recommended levels of at least 150 minutes of weekly moderate intensity physical activity. <i>Inactive</i> means they achieve less than 30 minutes. A third category, <i>fairly active</i>, is used for people who achieve 30-149 minutes per week.</p> <p>Sport England track these numbers at a population level through the Active Lives Survey. SALS was developed because we needed a robust and proportionate evaluation tool that could do likewise for the projects we fund.</p>
<b>How was SALS developed?</b>	<p>Sport England worked with Public Health England to appoint an experienced research team to identify the best self-report tool to measure physical activity in project evaluation. <a href="#">Read the full research report</a>.</p> <p>The team gathered a range of established tools and developed some new ones. SALS was one of the new tools. It is based on a sub-set of questions from the full Active Lives Survey that were shortened and simplified for SALS.</p> <p>The team then tested each tool by comparing them to each other, to the national Active Lives Survey, and to an objective measure (accelerometers) to determine which was most suitable for Sport England's requirements.</p>
<b>Why does Sport England recommend SALS over other tools?</b>	<p>The research team concluded that the Short Active Lives Survey was the best tool for our needs, based on its accuracy versus other recognised measures, its speed of completion and ease to administer, and its ability to capture a minutes-based measure of total moderate physical activity that can classify respondents as <i>active</i>, <i>fairly active</i> or <i>inactive</i>. <a href="#">Read our recommendation paper</a>.</p>

<p><b>How does SALS work?</b></p>	<p>SALS asks whether respondents did any physical activity in the last 7 days across three activity types: 1) walking, 2) cycling, and 3) sport, fitness and dance. For each one they did, they are then asked: a) on how many days they did it, b) how long they did it for on average, and c) whether it usually raised their breathing rate (to determine whether it qualifies as at least moderate intensity).</p> <p>A complete response can quantify someone’s overall weekly moderate intensity physical activity levels – by adding together total activity (days x time) for each activity type that raised their breathing rate.</p> <p>This can be used to classify people as <i>inactive</i> (&lt;30 mins), <i>fairly active</i> (30-149 mins) or <i>active</i> (150+ mins), or for more detailed analysis.</p> <p><b>There is an illustrative example of how SALS works at the end of this document.</b></p>
<p><b>What can SALS be used for?</b></p>	<p>SALS is a credible, academically tested tool that you can use to measure overall physical activity levels and classify people accordingly (see above). You can use this to measure or track change in the physical activity levels of participants, for example before and after a behaviour change project, or across the duration of a campaign.</p> <p>You can use SALS as a screening tool. For example, if your project is targeting inactive people you can use SALS to check their eligibility.</p> <p>You can use SALS alongside demographic or socio-economic data to highlight differences in physical activity across different audiences, or alongside attitudinal or other behavioural data to identify patterns or trends.</p> <p>You can compare SALS findings to data from the national Active Lives Survey, from which the SALS questions were derived. For example, to identify if project participants who completed SALS are more or less active than a comparison group who completed the Active Lives Survey.</p> <p>You can perform more detailed analysis on the amount, frequency (days), duration (time) and intensity (breathing rate) of physical activity, within the three types of activity (walking, cycling, and sport, fitness and dance) and overall. This can show, for example, whether people are moving from light to moderate intensity activity, the distribution of activity across the three types, or how duration and frequency vary across participants.</p>
<p><b>What limitations does SALS have?</b></p>	<p>SALS can collect data on <i>light</i> intensity activity and <i>moderate/vigorous</i> activity, but it cannot distinguish between <i>moderate</i> and <i>vigorous</i>. If collecting data on vigorous activity is important to you please contact us via <a href="mailto:research@sportengland.org">research@sportengland.org</a> to discuss how SALS can be adapted to support this.</p> <p>SALS cannot measure related outcomes such as strength, balance, co-ordination, or time spent sitting or sedentary. If such outcomes are relevant to your project you may need to use different or additional measurement tools.</p> <p>No self-report physical activity tool, including SALS, has been validated for detecting change over time. We believe SALS is still very suitable to use for this purpose, and that it represents the best of the available options.</p> <p>By its nature SALS is not as detailed and sensitive as the full Active Lives Survey. You should take their differences into account when making any data comparisons. For example, the full Active Lives Survey collects considerably more data about the type, frequency and intensity of specific activities.</p> <p>Like any self-report tool, SALS relies on accurate recall and truthful reporting.</p>

## Part 2: Using the Short Active Lives Survey in your research or evaluation

<b>How do I use SALS in my research or evaluation?</b>	<p><a href="#">Click here to see the Short Active Lives Survey questions.</a></p> <p>SALS can be used on its own or as part of a longer survey. It is most suitable for paper and online surveys but can also be used in telephone or face-to-face surveys.</p> <p>If you use SALS in a longer survey, you can choose where to place it so it fits with the flow of your survey, but in evaluation surveys we recommend placing it before any questions that ask people directly about the influence the project has had on them (to avoid 'leading' them towards reporting higher levels of physical activity).</p> <p>You may like to include a short introduction to the SALS questions. If so we suggest: 'The next few questions ask about any physical activity you have done in the last 7 days'; but you can change or add to this to ensure it fits the tone of your survey.</p> <p>To preserve SALS' integrity as a tested measure you should use all questions in their full original form and order.</p> <p>For more advice on designing your survey, and for lots of other ways to support your data collection, read our <a href="#">guide to maximising response rates</a>.</p> <p>For further information on planning and conducting effective evaluation and research please visit our <a href="#">Evaluation Framework</a> or read our <a href="#">Guide to Research</a>.</p>
<b>Should I use the online or offline version of SALS?</b>	<p>We provide two versions of SALS: one for online use, for example if you use an online survey tool or app and invite respondents to access it via smartphone, tablet or PC; and an offline version, for example if you want people to complete it using pen and paper. Use whichever version works best for your project, based on its setting, audience, delivery model etc.</p> <p>Administering SALS online typically allows for more streamlined user functionality and automated data collation, which can save you time and improve response rates. It can also improve data quality (see the section below on extra functions of the online version).</p> <p>Administering SALS offline can be cheaper or more pragmatic in some situations, and collecting the data does not require any equipment or technology.</p>
<b>Who can I use SALS with?</b>	<p>We recommend using SALS only with respondents aged 16+, as it has not been tested on children or young people.</p> <p>For some audiences you may need to adapt the wording or implementation of SALS to meet their needs (see below).</p> <p>SALS may be inappropriate for certain audiences, such as people who are very frail, people with cognitive disability, or people with severe mobility problems.</p> <p>As with any survey, consider ethics and data protection. We provide guidance on this within <a href="#">Step 4 of our Evaluation Framework</a>.</p>

<p><b>Can I change or adapt SALS for my audience?</b></p>	<p>Any measurement tool should be suitable and inclusive for the audience. In most cases SALS should be used in its full original form, but for some audiences you may need to adapt the wording, format or implementation of SALS to meet their needs.</p> <p>We have worked with several organisations to adapt SALS for their audiences, including the British Lung Foundation, the MS Society, and the Stroke Association.</p> <p>If you would like to adapt SALS for your evaluation please discuss this with us by contacting us at <a href="mailto:research@sportengland.org">research@sportengland.org</a>.</p> <p><a href="#">Read our guidance on Accessible Evaluation.</a></p>
<p><b>When should I collect data?</b></p>	<p>SALS can be used as a one-off or repeated measure of physical activity. Timings can vary by project, but where possible we recommend administering SALS at baseline (before someone begins a project), and then at 3-, 6- and 12-month follow-up points to track change. If possible, collect data from the same people at each point as this will bring more certainty to your findings.</p>
<p><b>How do I collate and analyse the responses?</b></p>	<p>You can use your own method, or we have an <a href="#">Excel spreadsheet</a> you can use which will automatically determine each respondent’s total weekly moderate physical activity and classify them as <i>active</i>, <i>fairly active</i> or <i>inactive</i>.</p> <p>If you are working with an evaluation partner (either directly or through your funder) they may provide a system for you to use or help you set up your own.</p> <p>Before analysing data you should check it for any missing, incomplete or incorrect entries and decide if and how you need to clean it (see table below).</p> <p>Take care with any formulas or calculations you use and check they are working correctly before starting your analysis and reporting any findings.</p>
<p><b>What extra functions can the online version use?</b></p>	<p>If you use the online SALS questionnaire, you may be able to add certain functions to improve data collection. These include:</p> <ol style="list-style-type: none"> <li>1. <i>Make Q1 mandatory.</i> Depending on their response to Q1, respondents are asked to complete either 0, 3, 6 or 9 further questions (three per activity type). So requiring a response to Q1 will help boost your overall response rates.</li> <li>2. <i>Direct respondents to relevant questions only ('routing').</i> Set up the survey so that it directs respondents accordingly based on their response to Q1. E.g. if they ticked only cycling in Q1, the survey should bypass the further questions on walking and sport and fitness and only ask the respondent those about cycling.</li> <li>3. <i>Validate responses.</i> For the questions on ‘how many days’, you can require that answers be a whole number from 1 to 7 (you don’t need to include 0 days in the online version of SALS). For the questions on ‘how much time’, you can require that answers be a whole number from 0 to 59 (minutes) and 0 to 24 (hours).</li> </ol>

**How do I clean the data?**

Cleaning the data means correcting or removing missing, incomplete or incorrect responses to improve the quality of the dataset. The exact approach you take to this may vary, depending on the overall quality of the data, the sample size you are working with, the method of data collection, and so on. So we advise you to set your own consistent thresholds in judging if and how your data should be cleaned, and to record this in your reporting. Nevertheless, we provide some pragmatic suggestions on how to clean your SALS data below.

Issue	Possible solution
Respondent says 'no' to a physical activity, but goes on to enter a number of days and a duration.	Keep them in the sample, i.e. record them as 'yes'.
Respondent enters number of days but not duration (or vice versa).	Set the absent value as 'missing' but keep them in the sample.
Respondent enters 0 days but gives a duration.	Exclude responses for this activity from the sample (as without a number of days you cannot determine frequency or total duration).
Respondent has not given an intensity for an activity they did.	Consider applying an 'assumed' intensity based on the most common intensity for that activity from the rest of the sample.
Respondent has <i>very obviously</i> entered the number of minutes in the hours field (or vice versa).	Consider correcting it. E.g. '30 hours' is more likely to be 30 minutes. Be consistent, and if in doubt, don't edit.
Respondent has exited survey part way through.	Include partial responses. E.g. if someone has left the survey after walking, still include their response to the walking questions.
Values feel improbably large (in the context of your project/audience). E.g. Respondent enters 12 hours of walking on three days a week. This is possible, but very unlikely in some audiences.	Use discretion to decide whether to exclude very large values, and if so set a reasonable 'ceiling'. Consider the effect of such values on your overall dataset, e.g. do they considerably skew the average. If so, consider reporting two sets of figures.

### Part 3: Common questions about completing the Short Active Lives Survey

<p><b>Who should complete the questions?</b></p>	<p>SALS is a self-report tool, meaning it is designed to be answered by respondents in person. For some audiences it may be appropriate to offer support. For example, a project might ask a carer to help a respondent with moderate dementia to complete it.</p>
<p><b>How long does SALS take?</b></p>	<p>For most people SALS takes around a minute to complete, on average.</p>
<p><b>Why does walking need to be ‘at least 10 minutes?’</b></p>	<p>When SALS was released in 2018 the CMO guidelines at the time recommended that physical activity be undertaken in bouts of at least 10 minutes. Within SALS, walking is by far the most likely of the three activity types to be done in shorter bouts, and we decided that specifying ‘at least 10 minutes’ was helpful (more so than for cycling or sport/fitness) to clarify how respondents should answer.</p> <p>The new CMO guidelines published in 2019 removed the 10-minute threshold. We’ve chosen to retain the 10-minute guidance for walking to preserve the integrity of SALS in the form it was originally tested and validated, and to ensure continuity for in-progress evaluations. We will keep this under review.</p>
<p><b>Why does SALS ask about breathing rate?</b></p>	<p>We ask this question to determine whether activity is at least <i>moderate</i> intensity, and therefore counts towards UK Physical Activity Guidelines and national targets.</p> <p>The 2019 Guidelines define moderate physical activity as ‘an activity that requires a moderate amount of effort and noticeably accelerates heart and breathing rate’.</p> <p>SALS therefore uses breathing rate as the most practical way to distinguish between light and moderate activity.</p> <p>Activity raises breathing rate = at least moderate intensity (counts).          Activity does not raise breathing rate = <i>light</i> intensity (does not count).</p> <p>(Note that data on light intensity can still be used in analysis, such as to detect changes in intensity over time.)</p>
<p><b>What if respondents are unsure about their breathing rate?</b></p>	<p>If respondents are unsure whether activity raised their breathing rate you can provide further guidance on what moderate intensity physical activity means.</p> <p>Adults doing moderate physical activity will get warmer, breathe harder and their hearts will beat faster. They should be able to talk or hold a conversation, but not sing (known as the ‘talk test’).</p> <p>Examples of activities that are usually moderate intensity include cycling, brisk walking, water aerobics, doubles tennis, and ballroom dancing.</p> <p>If respondents are still unsure you can discuss their activity with them in more detail if it helps them decide, but ultimately they should just go with their instinct.</p>
<p><b>What if someone’s breathing is affected by a disability or health condition?</b></p>	<p>SALS aims to detect whether the effort of physical activity was enough to raise a respondent’s breathing rate <i>over and above what it would normally be including the effect of any condition or disability</i>.</p> <p>Here is an example of wording we agreed with the British Lung Foundation:</p> <p>‘Was the effort you put into walking usually enough to raise your breathing rate, above any usual breathlessness you experience?’</p>

<p><b>What if duration or intensity vary within activity type?</b></p>	<p>SALS asks about ‘usual’ duration or intensity, but sometimes this can vary.</p> <p>If duration varies, respondents should give an approximate average duration. So someone who has done 60 minutes of cycling on one day and 30 minutes on another would give an average duration of 45 minutes (assuming no other activity).</p> <p>If intensity (breathing rate) varies within activity type, respondents should answer in relation to how they felt for the <i>majority</i> of activity. So if someone had done 90 minutes of energetic squash and 45 minutes of gentle yoga in a week, they would answer ‘yes, it did raise my breathing rate’ as this applied to the longer duration.</p> <p>Sometimes this means that responses will over- or understate duration or intensity of activity. If your project needs finer detail like this you should record it separately.</p>
<p><b>What does ‘sport, fitness activity (such as gym or fitness classes), or dance’ cover?</b></p>	<p>This covers all other sport, fitness activity and dance (excluding walking and cycling). While the exact scope of what this covers may vary by your project or funder – for example Sport England does not include gardening, occupational activity and housework within its scope – unless respondents ask it is usually best to leave it to their own perception of what counts.</p> <p>Because this question covers such a large range of activities, you may wish to tailor the examples given in SALS to be more relevant to your project and its audience. Please contact us at <a href="mailto:research@sportengland.org">research@sportengland.org</a> if you would like to discuss this.</p>
<p><b>Why does the scale include ‘0 days’?</b></p>	<p>This acts as a failsafe on paper surveys, in case people miss the opening yes/no question or mistakenly tick yes when they mean no.</p> <p>We recommend excluding any responses that state 0 days (even if they have given an average duration) since this makes it impossible to determine frequency and therefore total duration.</p> <p>If you are using an online survey with routing you can remove the ‘0 days’ option if you wish.</p>

## Appendix

### Illustrative example of how SALS determines a respondent's physical activity classification

Bold and underlined entries indicate data provided by respondent. Question wording is simplified.

	Done in last 7 days?	How many days?	How long per day?	Total activity	Raised breathing rate?	Moderate intensity?	Total moderate activity	Classification
Walk	<u>Yes</u>	<u>4</u>	<u>15 mins</u>	4 x 15 = 60 mins	<u>No</u> →	No		Fairly active (30-149 mins p/w)
Cycle	<u>No</u>							
Sport & fitness	<u>Yes</u>	<u>2</u>	<u>45 mins</u>	2 x 45 = 90 mins	<u>Yes</u> →	Yes	90 mins	

In the example above:

- The respondent walked on four days, for around 15 minutes per day, but as it didn't raise their breathing rate it doesn't count towards total moderate activity or the classification.
- The respondent did not cycle in the last 7 days so answered no further questions on cycling.
- The respondent did sport and fitness on two days, for an average of 45 minutes per day. It did raise their breathing rate so it counts as moderate intensity.
- In total, the respondent did 150 minutes of activity, but only 90 of these were moderate. This means they are *fairly active*, i.e. they achieve 30-149 minutes of moderate physical activity per week.