

Spirometry Factsheet – August 2023

The following factsheet has been designed to support you as you progress through your spirometry learning. This factsheet will be provided to you every month after each tutorial.

New to the programme?

Please ensure that you have viewed the meet and greet video for those of you working through the Spirometry Online blended learning with ARTP and the Spirometry Refresher Programme with ARTP.

Support Available

We have changed the way you can contact us to ensure your questions and queries are managed effectively. If you have a question or query, please can we ask that you access the following link and complete the form rather than emailing us. A member of the team will contact you. Alternatively, you can use the form if you would like a particular topic to be covered at the monthly tutorial.

https://forms.office.com/Pages/ResponsePage.aspx?id=VsTAAthQqkWkgjh96Vc-WY9ZFgW_JFBDmuyqYm8_KopUMTBUNIIJMVVVRTZXSDY3R0JJCQ0xJUDZKVC4
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Your monthly tutorial

We are continually looking to review the way in which we deliver the course. We want to ensure that each monthly tutorial is catered to the learning needs of our learners. Therefore, we are changing the names of the tutorial so that you can be really clear around which tutorial you would like to attend. These will now be:

- **Performing**

These sessions are designed to provide you with an overview of how to perform spirometry. Here we will be discussing key components such as calibration and verification as well as providing some key hints and tips to support your patient getting ready to undertake spirometry.

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- **Performing and Reporting (interpreting)**

These sessions are designed for those learners who will be involved in performing spirometry and reporting (interpreting) on spirometry traces. We will cover a step-by-step process on how to report (interpret) a basic spirometry trace. You should attend this tutorial if you are confident on performing spirometry and are ready to report (interpret) a spirometry trace.

- **Reporting and getting ready to undertake your ARTP certification.**

These sessions are designed for those learners who are nearing completion of their spirometry eLearning and are ready to apply for their ARTP certification (assessment). Within this tutorial we will be covering how to report (interpret) more complex traces and providing you with hints and tips to the ARTP certification process.

Please ensure that you have attended the performing and performing and reporting tutorials.

Occupational Health

These sessions have been designed for those learners who are operating outside of primary and secondary care and are currently operating in the following area of practices Army, Ministry of Defence and occupational health settings.

Which tutorial to attend?

These tutorials are rolling and therefore as you work through your programme, you can move from one tutorial to another so for instance you can attend the performing tutorial initially. Once you are confident with performing spirometry then you can attend the performing and reporting tutorial and so on.

There will be an opportunity to ask questions during the monthly tutorials; any questions that may come in advance and are not covered on the rolling programme, will be addressed on the day.

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How to I work through the Spirometry Online blended learning programme?

The Spirometry online blended learning programme consists of eLearning units and monthly tutorials. We encourage you to work through the chapters in a linear format so that you gain a thorough understanding of the spirometry process. Depending on your role in spirometry you may wish to spend more or less time on some chapters versus others. Please check your welcome pack for further details. **Please note this does not apply to those of you on the Spirometry Refresher programme.**

I am completing the Spirometry Blended Online Programme with ARTP certification. Do we have to complete the eLearning before we access the ARTP certification?

Education for Health's learning is independent of the ARTP assessment. We would recommend that you apply for your ARTP once you have completed all the eLearning chapters and have undertaken practical training in your area of practice.

Frequently Asked Questions (FAQs):

The Association for Respiratory Technology and Physiology (ARTP) have put together a number of FAQs: <https://www.artp.org.uk/Spirometry-FAQs> **These were updated by the ARTP in February 2023 so please do access them.**

Spirometers

If you have any questions around spirometers, we encourage you to contact the manufacturers in the first instance. Education for Health does not endorse any particular spirometer for use in the clinical situation. For advice re: suitability of spirometers, please refer to the manufacture's website for detail of the variety and performance of their products.

Questions from August 2023 on-line Tutorial

Q. My device doesn't show Z scores.

ARTP: "The patient test must include the results from relaxed or slow vital capacity (SVC) manoeuvres and forced vital capacity (FVC) manoeuvres. You must include the results of all the manoeuvres performed (minimum of 3) for each of

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the following, SVC, FEV1, FVC, FEV1/FVC% and PEF. You must also include the volume/time and/or flow volume loop trace of the best effort. All results must be digitally shown and not handwritten on the results sheet. All your results must demonstrate acceptability and reproducibility and must have been performed within the last 12 months of your registration start date.

If your spirometer does not print out all efforts performed, you should either take a photograph of them as they appear on your spirometer or print them individually and combine them into a word or PDF document to upload. https://www.artp.org.uk/resources/spirometry_sop_2023

Q. Would you do reversibility test if the result is positive and all above LLN?

The question I believe, refers to the baseline results all above LLN. The patient's own best ever results may be much greater than either LLN or mean values, therefore it is appropriate to do a bronchodilator responsiveness test (reversibility).

Q. my device doesn't show Z scores, do I need a new device?

ARTP: "z-scores have long been and remain the preferred method for comparing the subject's recorded value with the predicted value". When ready to purchase a new spirometer, the z-score should be a feature of the software.

Q. how do you calculate the mean predicted value/ 0 for each patient?

The functionality of your spirometer and the reference equations it uses will calculate the predicted values, as long as the demographics for the patient have been recorded accurately.

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Q. can we have details of z-score severity grading written down for the exam?

ARTP: The MCQ examination must be completed under examination conditions defined as within a set time limit (60 minutes), without access to reference materials and under the supervision of nominated invigilator.

Q. can we have a calculator in exam?

ARTP: “A pen & paper or manual calculator is allowed if required”

Q. would you investigate a restrictive pattern even if they have a high BMI?

Yes, it is important to rule out any red flags and not to assume the BMI is the cause.

Q. If spirometry results are not within 150ml, would you be repeating the test?

ARTP: The chosen values for FVC and FEV1 should not differ from the next best values for FVC and FEV1 by more than 150 mL. In subjects with a FVC of <1.00 L, this difference should not be greater than 100 mL.

If the repeatability criteria are not achieved, then the manoeuvre can be repeated up to eight times, after which the probability of getting a better result is greatly reduced.

Q. do you need to submit the individual calibrations with each spirometry report?

You are required to upload your verification log.

If your patient test shows the date of the last verification check (some do, some do not), and it is not the same as the date for the test, this indicates the verification check was not done on the day of the test.

Q. Is it just the top 2 PEF that have to be within 40?

The highest reading of at least three acceptable blows should be recorded and within 40 L/min of each other.

Q. There was a large change in VC but this is still negative reversibility due to FEV1 being no significant change?

Bronchodilator drugs produce variable improvements in lung volume and improve lung emptying.

Q. I have failed my MCQ exam last week. Is there any support I can access before I re-attempt the next MCQ exam.

ARTP: If you fail the MCQ examination on the 1st try, you are permitted further 2 attempts. The examination is created from a large bank of questions at random, so next time you sit the exam you may find the questions will be different.

ARTP have created a mock MCQ to access prior to your live MCQ examination date, which will give you a feel for how the MCQ exam will run on the day of the assessment.

You can access the mock MCQ, which consists of 10 questions here:

<https://www.artp.org.uk/mcq-bookings>

To start the mock MCQ, enter your name, email and the password as **mock exam**.

Education for Health provide monthly tutorials; you should also reflect on the learning materials from the e-learning module. Working with other colleagues such as physiologists may also help to consolidate your learning.

Q. For the portfolio I thought it was 10 spirometry reports?

ARTP: You are required to perform and upload **10** good quality anonymised spirometry test reports. These must be obtained from patients who **you have tested** and must not contain duplicate tests (e.g., same patient, different days). The results should be a patient, aged 16 or older, of any type *i.e., normal, obstructive, restrictive and of any severity*.

Q. the reports that my spirometer generates don't show the z-score. If any of the breaths are below the LLN they are highlighted in bold, but the actual numerical Z-score isn't shown. Will this be a problem in my portfolio?

Your patient reports must meet the above criteria. If your spirometer does not show the z-score that is the idiosyncrasy of your spirometer, as long as it gives ECCS, (European Community for Coal and Steel) predicted values for reporting as your reference equation.

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Q. person completing physiological tests meets criteria for never smoker, healthy lungs etc but slight scoop on trace is this acceptable?

Another ARTP assessor has confirmed that as long as the results meet the criteria of repeatability and Z-score for all indices is normal, this is acceptable.

Q. The company that looks after our computers are investigating pebblepad and won't allow me to download it at the moment.

I have requested the portfolio's access and I haven't got any answers yet.

How do I get access to pebblepad?

Please see link below for information re: pebblepad

<https://www.artp.org.uk/resources/pebblepad-guide>