

## How to use your Log Book

This log book is for you to record your swimming training and competition information. At the beginning please record your personal information, which also includes a table to write down your height, weight and resting Heart Rate (HR) for each month of the season (Please check HR before you get out of bed in the morning by finding your pulse, counting the beats for 6 seconds and multiplying by 10). Practice for this exercise will be done during training.

The next section refers to goal setting; this is where you and your coach will set targets to work towards. For the short term, perhaps there are certain qualifying times you would like to achieve at the next Swim Meet. In the mid term, maybe you would like to reach a County or Regional Championship final, and in the long term perhaps you would like to achieve a National qualifying time, these types of goals will be discussed and tailored to you.

The weekly training log is to be filled in after each training session to record the number of metres swum and your comments about how you felt before, during and after the training session (maybe score yourself from 1-10).

The next few pages are for you to record your Personal Best (PB) times achieved at competition. The competition log is for use at meets and championships and for you to record any comments about your swims i.e. how you felt, what you ate before and during the meet, how much you drank. This is very useful as it can sometimes explain why you swam so well or why it wasn't as you'd hoped.

The final few pages are based on warm-up and cool-down protocols, fitness testing and nutritional advice, which provides you with additional information to increase your swimming knowledge along with training and competition attitude.

Swimmer Details

| Name |  |
| :---: | :--- |
| Date of Birth |  |
| Address |  |
| Parents / Guardian Names |  |
| Home Telephone Number |  |
| Emergency Contact Number |  |
| Email address |  |
| Medical Condition / Medication |  |
| Swim Wales Number |  |
| Squad |  |
| Coach | 07771 550179 |
| Coach Telephone Number | justinjones83@icloud.com |
| Coach Email address |  |

Height and Weight Record

| Month | Height <br> (cm) | Weight <br> (Kg) | Resting Heart Rate <br> (bpm) | Comments |
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Please enter Height, Weight and Resting HR during the first week of each month
My Training Times are....

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Goal Setting
Specific - Instead of simply saying "I want to improve my 50m freestyle", say what you want to improve about it. For example, "I want to improve my 50m freestyle turn". This will give you a specific focus to work on in training.

Measurable - Make sure you will know when you have reached your goal. For example, using a time as a target will make this easier.

Achievable - Speak to your coach about the goals you set. They will tell you if it is suitable.
Realistic - Setting a goal that is too challenging will not help your self confidence because you are not likely to achieve it. Try not to make it overly difficult.

Time bound - Give yourself a deadline to reach your goal, e.g. in 6 months time. You can adapt this time range according to what competitions you have coming up.

Exciting - Your goal must not be too easy and be challenging to work towards.
Recorded - Write down your goals - it will make you more determined to achieve them and help you monitor progress.

| Short Term <br> (This season): |  |
| :---: | :---: |
| How I will achieve this.... |  |
| Mid Term <br> (Next season) |  |
| How I will achieve this.... |  |
| Long Term |  |
| (major ambition): |  |
| How I will achieve this.... |  |
| Signed by Swimmer by Coach |  |
| Date of Goal Setting |  |

Pool Session Log

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The Reflective Swimmer
Some areas to think of before, during and after training:

| 1 | My overall performance in training |
| :--- | :--- |
| 2 | My attitude in training |
| 3 | My commitment to improving my flexibility and strength |
| 4 | The quality of my streamlining after every push off and turn |
| 5 | The speed and technical quality of my turns |
| 6 | The distance I achieve off the wall after all my turns |
| 7 | The quality and speed of my underwater dolphin kicking / Breaststroke phase |
| 8 | The quality of my technique when swimming at maximum speed |
| 9 | How regularly and accurately I count my strokes |
| 10 | How regularly and accurately I check my heart rate |

## Warming up and Cooling Down

Before you start your swimming session, you need to know your body is ready for the challenges ahead. You must actively warm up and stretch every time you exercise.

By properly preparing your body for swimming, you are increasing your flexibility - which increases your efficiency in the water - and reducing any subsequent muscle soreness. Stretching is integral to getting the most out of your training session as swimming is an all-body workout; try to stretch all of the major muscle groups before you swim.

The best way to do this is to stretch each body part in order - holding stretches for 10 to 15 seconds and run through this routine three times (your coach will perform these stretches with you at first). Stretching cold muscles may relieve tension but will have very little effect on flexibility, so gently swim for five minutes before undertaking your stretches.

If you're stretching in the water, your body will cool down rapidly so maintain your temperature by walking, jogging on the spot or swinging your arms or legs for 20 seconds between each stretch. You should also stretch after training - try doing this in a warm shower, holding each stretch for 30-40 seconds to help clear waste products from the muscles, improve post-exercise flexibility and stimulate the muscle receptors that promote relaxation.

Once you've completed your stretching routine, you should continue to warm-up your body before attempting to thrash out your fastest freestyle sprint!

Warmth - It's all in the name really. If the water or air temperature is cold, it's going to take longer to warm-up.... so take that into account.

Mobility - Swimming is fantastic exercise for your joints in a weightless environment. Nevertheless, bursting into ten lengths of butterfly isn't going to do your shoulders any help. Concentrate on relaxing your joints and gliding through the water as you warm-up.

Heart rate (HR) - By warming-up, you are avoiding any oxygen deficit or pre-training tiredness but don't take it too easy! You need to be gradually raising your HR to ensure the warm-up effects are maintained.

At the end of the training session it is very important to make sure you complete your cool down / swim down. This involves lowering your HR back down to a steady state before finishing off with static stretching to increase the flow of waste products away from the muscles.

Further information regarding warm up and cool down will be delivered during training sessions.

Nutrition for Training and Competition
The main source of energy during training and competition is derived from carbohydrate; therefore, it is not surprising high carbohydrate meals and drinks are essential to provide energy and to facilitate recovery. The timing of meals and snacks however, is important

## 30-Minute Rule

The muscles are most susceptible to restoration of carbohydrate stores within the first 30 minutes after exercise. The swimmer should eat 50 to 100 grams of carbohydrate, whilst keeping fat ingestion low, as soon as training finishes, and definitely within the first 30 minutes after training.

The following are examples of appropriate snack foods immediately after training and competing:

- Fruit
- Nutrigrain bars
- Jam or honey sandwich
- Malt loaf
- Fig rolls
- Fruit Smoothie
- Muller rice
- Dried fruit
- Rice cakes


## Keep Hydrated

It is vitally important to drink plenty of fluids (water, juices, sports drink) prior to training, during training and after training. At least 1 litre of water per Kg of body weight lost during training needs to be replenished with fluid.
It is vital that you bring at least 1 litre of water and 1 litre of sports drink to every training session.

## Training

Have a snack item (examples above) with fruit juice 30 minutes before every training session. For both morning and afternoon training your full breakfast or evening meal should be eaten after the session.

## Before Competition

A high carbohydrate / low fat meal should be consumed 2-4 hours before an event.
Suitable types of food include: breakfast cereals, porridge, bread, toast, fruit juice, fruit, rice cakes, boiled rice, potatoes, boiled pasta, oatmeal biscuits, muffins and carbohydrate drinks. These foods all help to release energy slowly. A small snack (see snacks above) may be eaten about 30 minutes prior to a race.

## During Competition

If the interval between races is less than 30 minutes, you should drink fluids / juices or a sports drink. If the interval between races is up to 1 hour, you should have a snack from the above list, with plenty of fluid, up to 30 minutes before the next race.
If the interval is $1-2$ hours, you should have a small high carbohydrate / low fat meal.
Important: As water is stored with carbohydrate, it is essential that a substantial amount of fluid is drunk with meals and snacks.

## 30\% Fat Rule

It is recommended that swimmers should eat high carbohydrate low fat meals. Low fat is defined as food items with less than $30 \%$ fat by calories. This is not the value that is presented by the food manufacturers on the label, who display fat content by weight, as this makes the food appear healthier than it usually is.

## An easy way to calculate the true fat content

1. Look at the label on the food and see how many grams of fat it contains per serving.
2. Multiply the number of grams by 9 to calculate the number of kcal from fat per serving.
3. Look at the label for the total energy, the number of kcal per serving.
4. Divide the kcal from fat by the total kcal and multiply by 90.

30 Foods for Swimmers

| Foods | Carbohydrate | Protein | Antioxidants | Fibre |
| :---: | :---: | :---: | :---: | :---: |
| 1. Blueberries | $\checkmark$ |  | Anthocyanins |  |
| 2. Blackberries | $\checkmark$ |  | Anthocyanins |  |
| 3. Strawberries | $\checkmark$ |  | Vitamin C |  |
| 4. Oranges | $\checkmark$ |  | Vitamin C |  |
| 5. Mango | $\checkmark$ |  | Vitamin A, Vitamin C |  |
| 6. Broccoli |  |  | Vitamin A, Vitamin C | $\checkmark$ |
| 7. Carrots |  |  | Vitamin A, Vitamin C | $\checkmark$ |
| 8. Tomatoes |  |  | Vitamin A, Vitamin C | $\checkmark$ |
| 9. Sweet Potatoes | $\checkmark$ |  | Vitamin A (betacarotene), Vitamin C |  |
| 10. Avocado |  |  |  | $\checkmark$ |
| 11. Spinach |  |  | Vitamin A |  |
| 12. Mixed Greens |  |  | Phytonutrients |  |
| 13. Potatoes | $\checkmark$ |  | Vitamin C |  |
| 14. Bananas | $\checkmark$ |  | Vitamin C |  |
| 15. Almonds |  |  | Vitamin E (gamma-tocopherol) |  |
| 16. Cranberries | $\checkmark$ |  |  |  |
| 17. Oatmeal | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| 18. Granola | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| 19. Olive Oil |  | $\checkmark$ | Vitamin E |  |
| 20. Black beans | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| 21. Yogurt | $\checkmark$ | $\checkmark$ |  |  |
| 22. Milk | $\checkmark$ | $\checkmark$ |  |  |
| 23. Orange juice | $\checkmark$ | $\checkmark$ | Vitamin C | $\checkmark$ |
| 24. Whole grain bread | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| 25. Whole grain pasta | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| 26. Eggs |  | $\checkmark$ |  |  |
| 27. Beef |  | $\checkmark$ |  |  |
| 28. Salmon |  | $\checkmark$ |  |  |
| 29. Shrimp |  | $\checkmark$ |  |  |
| 30. Chicken |  | $\checkmark$ |  |  |

## Nutrients Explained

| Carbohydrate | Your main fuel for all training and competitions |
| :--- | :--- |
| Protein | Used to aid recovery and muscle repair after training / competition |
| Anthocyanins | Boosts your immune system |
| Vitamin A | Supports growth and development |
| Vitamin C | Boosts your immune system |
| Vitamin E | Prevents cell damage |
| Phytonutrients | Acts as an inflammatory |
| Fibre | Helps maintain digestive health |

## Fitness Testing

Fitness testing will take place at regular intervals throughout the season. Below you will find examples of tests which will be covered.

## Endurance test 1, 2 \& 3

1000m / 2000m / 3000m-time trial (T10 /T20 / T30)

On the $1000 \mathrm{~m}, 2000 \mathrm{~m}$ and 3000 m tests it is important that the swimmer swims at the fastest possible speed that they can sustain. The tests are based on the fact that swimmers should be able to sustain about 30 minutes of work at their individual anaerobic threshold speed.

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## Endurance test 4

$7 \times 200 \mathrm{~m}$ Step Test
The goal is to achieve the fastest possible average time for the $7 \times 200 \mathrm{~m}$ swims on the shortest possible sendoff cycle. This test can also be performed as a $5 \times 200 \mathrm{~m}$ test using Breaststroke.

| Step | $\begin{aligned} & 1^{\text {st }} 100 \mathrm{~m} \\ & \text { Split } \end{aligned}$ | $\begin{aligned} & 2^{\text {nd }} 100 \mathrm{~m} \\ & \text { Split } \end{aligned}$ | Final time | $\begin{gathered} \text { HR } \\ \text { (bpm) } \end{gathered}$ | Stroke Count 3 rd 50 m | $\begin{gathered} \text { Stroke } \\ \text { Rate } \\ \text { 3rd } 50 \mathrm{~m} \end{gathered}$ | Stroke Count $4^{\text {th }} 50 \mathrm{~m}$ | Stroke Rate <br> $4^{\text {th }} 50 \mathrm{~m}$ | RPE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
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| 7 |  |  |  |  |  |  |  |  |  |

Endurance test 5 $5 \times 200 \mathrm{~m}$ Kick tes

The test protocol is to perform $5 \times 200 \mathrm{~m}$ kick sets on a specific turnaround time. Times are taken for each 200 m with the best average of the 5 sets being used as the test score. The aim is to decrease this average time each time the test is performed, which will demonstrate improved kicking efficiency.

| Name | Stroke | $1^{\text {st }} \mathbf{2 0 0 m}$ | $2^{\text {nd }} \mathbf{2 0 0 m}$ | $3^{\text {rd }} \mathbf{2 0 0 m}$ | $4^{\text {th }} \mathbf{2 0 0 m}$ | $5^{\text {th }} \mathbf{2 0 0 m}$ | Average |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
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Training Zone Classifications

| Training Zones | British Swimming | Description | $\begin{gathered} \mathrm{HR}^{2} \\ (\mathrm{bbm}) \end{gathered}$ | Sweetenham and Atkinson ${ }^{3}$ |  | Maglischo ${ }^{4}$ | Olbrecht ${ }^{5}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A1 | Aerobic Low Intensity | >50 | Zone 1 | A1 | EN1 | AEC |
|  | A2 | Aerobic Maintenance | 40-50 |  | A2 |  |  |
| 2 | A3 | Aerobic Development | 30-40 |  | A3 | EN2 |  |
|  | AT | Anaerobic Threshold | 20-30 | Zone <br> 2 | AT |  |  |
| 3 | $\mathrm{MVO}_{2}$ | Aerobic Overload | 10-20 | $\begin{gathered} \text { Zone } \\ 3 \end{gathered}$ | $\mathrm{MVO}_{2}$ | EN3 | AEP |
| 4 | LP | Lactate Production | 0-10 | $\begin{gathered} \text { Zone } \\ 4 \end{gathered}$ | LP | SP2 | ANC |
|  | LT | Lactate Tolerance | 0-10 |  | LT | SP1 | ANP |
| 5 | Sprint | Speed (ATP-CP) | N/A | Zone 5 | Sprint | SP3 | Sprint |

In addition to the above tests there maybe variations to testing procedures included throughout the season.


## Core Body Strength Tests

These tests can be performed at home away from training in order to maximize development and improvements to strength. All swimmers are encouraged to attempt these on a monthly basis.

## Push Up Position Hold

Description: The athlete is required to hold a particular position until the position is altered significantly or two and a half minutes lapse.

## The Test Position:

1. The athlete should lie face down on a comfortable, flat surface.
2. The arms should be placed in a push up position, with the hands underneath the shoulders. The legs should be held straight, with the toes turned under, in the push up position.
3. The athlete pushes up till the arms are fully extended; eyes should be looking directly toward the ground.
4. The back of the head, shoulder blades and buttocks should all be aligned in a straight line. This is the start position of the test.

The test protocol: The test is conducted in the following fashion.

1. A clock is started as soon as the "start" position is attained.
2. That position is held without variation.
3. The test ends when significant position changes occur or the swimmer gives up. Significant position changes are as follows;

- The body does not stay in a straight line, e.g. the hips begin to sag, or the head is thrust upwards or downwards or the knees bend.
- Any other alteration that changes the position.




## Push Up Position - Shoulder Blades Together

Description: The athlete is required to hold a push up position and at the same time, hold the shoulder blades together until the position is altered significantly or two and a half minutes lapse. This is an extension from the Push Up Position Hold as outlined in on the previous page.

## The Test Position:

1. The athlete should lie face down on a comfortable, flat surface. The arms should be placed in a push up position, with the hands underneath the shoulders. The legs should be held straight, with the toes turned under, in the push up position.
2. The athlete pushes up till the arms are fully extended, eyes should be looking directly toward the ground.
3. The back of the head, shoulder blades and buttocks should all be aligned in a straight line. The swimmers should then draw their shoulder blades together without alteration to their body position. The shoulder blades should be held flat against the back and not protrude from it. This is the "start," position of the test.

The test protocol: The test is conducted in the following fashion;

1. A clock is started as soon as the start position is attained.
2. That position is held without variation.
3. The test ends when significant position changes occur or the swimmer gives up. Significant position changes are as follows:

- The body does not stay in a straight line, e.g. the hips begin to sag, or the head is thrust upwards or downwards, or the knees bend.
- Any other alteration that changes the position.




## Lumbar Hold

Description: The athlete is required to hold a particular position until the position is altered significantly or four (4) minutes elapse.

## The test position:

1. The athlete should lie face down on a comfortable, flat surface.
2. The legs should be extended fully, knees straight and toes pointed, in much the same position as is desirable for maximum streamlining when swimming. The feet should be together.
3. Both arms should be extended forward and straight with fingers stretched and palms down.
4. The face should look directly downward with the nose touching the ground.
5. Both legs should be raised with the straight streamlined leg position being maintained. The knees should be held well clear of the ground with at least the mid-point of the thigh being off the surface. This is the test start position.

The test protocol: The test is conducted in the following fashion.

1. A clock is started as soon as the start position is attained.
2. That position is held without variation.
3. The test ends when significant positional changes occur or the swimmer gives up. Significant position changes are as follows:

- The knees bend or the pointed feet position is altered.
- The arms are not held straight. If they start to bend or "give" the position of hold changes which is outside the bounds of the test.
- The mid-position of either thigh or any other part of a leg touches the ground.
- Any other alteration that changes the position. It is vitally important that the athlete be tested on the muscle groups required to hold this exact position. The positioning is as important as the muscular endurance. The combination of the two requirements is what is important for the assessment of this capacity for swimming.

Scoring and Evaluation: The time that the position is held is the test score. It is considered that if the position can be held for the four minutes, the swimmer has sufficient strength and muscular endurance to hold an adequate body position in any swimming event.



## Front Abdominal Hold

Description: The athlete is required to hold a particular position until the position is altered significantly or four (4) minutes elapse.

## The Test Position:

1. The athlete should lie an a comfortable, flat surface.
2. The legs should be drawn up so that the feet remain flat on the ground and the knee bend is 90 degrees.
3. The athlete extends both arms forward; fingers stretched, and palms facing downward.
4. The straight body is raised until the wrists of both arms are over each corresponding knee. This is the test start position.

The Test Protocol: The test is conducted in the following fashion:

1. A clock is started as soon as the start position is attained.
2. That position is held without variation.
3. The test ends when significant positional changes occur or the swimmer gives up. Significant position changes are as follows:

- The arms are not held straight e.g. fingers stretched with palms down and positioned over the knees. A change in any of these characteristics is significant. It is important to keep the arms in this position because most swimming actions require specific arm positioning while the body is stabilized.
- The back is not held straight. If it starts to bend or give the position changes outside the bounds of the test.
- Any other alteration that changes the position. It is vitally important that the athlete be tested on the muscle groups required to hold this exact position. The positioning is as important as the muscular endurance. The combination of the two requirements is what is important for the assessment of this capacity for swimming.

Scoring and Evaluation: The time that the position is held is the test score. It is considered that if the position can be held for the four minutes, the swimmer has sufficient strength and muscular endurance to hold an adequate body position in any swimming event.



## Flexibility Test 1

Description: The swimmer is required to attain a position and hold for the maximum amount of time.

## The Test Position:

1. The athlete should stand up straight with their heels together, toes turned slightly outwards.
2. The swimmer should grasp each elbow with the arms in a folded position (as shown below, above their head).
3. The athlete should then move the body forward, without moving the feet or knees, stretching the arms forward holding the position. There should be a 90 degree position from the body to the thighs.
4. The swimmer will continue with and downward, till the upper body is resting on the thighs (or as close as possible to this position).

## Start position



Test position


## Flexibility Test 2

Description: The athlete is required to attain a position and hold for the maximum amount of time.

## The Test Position:

1. The athlete should start in a position with the arms folded behind their knees. Each hand would grip the opposite elbow and maintain this hold through the test.
2. The athlete should then push upward through the hips, without moving the feet, stretching the hamstrings to the maximum stretch position without letting go of the hold on each elbow.

Start Position


Test Position


Core Body Strength Tests - Recording Sheet
Please record your results in 'Time' when you complete these tests at home or in training.

| Date | Main Stroke | Push Up Position Hold | Push Up Position Shoulder Blades together | Lumbar Hold | Front <br> Abdominal Hold | Flexibility Test 1 | Flexibility Test 2 |
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## !!!Remember!!!

## "Train Hard to Swim Fast"



