Technique, Nutrition and Safety in dance

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Class:

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**Hydration:**

**Water helps prevent lactic acid build up**

When we work hard we sweat more, and during this process we lose water and vital body salts as well as heat. We must replace the water and the salts otherwise we get cramp and lactic acid builds up. Lactic acid builds up during continuous use of the same muscle groups and after a while it makes the muscle ache and feel heavy. Then it causes cramp and eventually the muscle stop working altogether. If you have ever tried to walk up an escalator or a long flight of stairs and felt the muscles in your legs begin to burn and get heavier, you have experienced the effect of lactic acid build up.

Regular sips of water during the dance session keep the body hydrated and the muscles working at optimum level. Obviously when you are dancing you will be working hard and you will sweat more than usual, so you need to consume more than the recommended two litres of fluids per day. If you start to feel thirsty this is a sign that you need to sip water more regularly.

[*AQA GCSE Dance,* Maggie Clunie, Liz Dale, Lyn Paine, pp23]**Protein**

**Did you know:** if you feel thirst, you are already dehydrated.

**Hydrated**: Provided with an adequate amount of water

**Lactic acid:** a waste product which builds up in the muscles during exercise.

**Necessary for muscle growth and repair**

They are also required to provide the substances that speed up chemical reactions in the body (enzymes), fight infection (antibodies) and transport oxygen from the lungs to the body (haemoglobin).

Animal proteins such as eggs, meat, fish, milk and poultry

Protein Requirements:

|  |  |
| --- | --- |
|  | Per kg of body weight |
| General adults | 0.75  |
| Male sportsperson / dancers | 1.2 – 1.6 |
| Female sportsperson / dancer | 0.9 – 1.2 |

**Nutrition:** Obtaining the food necessary for health. Nutrients are classified as: Proteins, carbohydrates, fats, vitamins, minerals and water.

**Carbohydrates and fats**

**Did you know**: If you are tired, dehydrated or finding it difficult to concentrate, you are more likely to suffer an injury.

**Did you know:** Good nutrition speeds recover from injury.

**Provide energy**

Starches and sugars are the main carbohydrates and are the key source of energy for the body. Carbohydrates are formed of smaller units called simple sugars, such as glucose, galactose and fructose. Glucose is required to maintain tissue protein, metabolise fat and for healthy brain and spinal cord function.

Fat consists of fatty acids and is classified as saturated and unsaturated fats.

Animal fats such as eggs, meat and dairy products are high in saturated fats (and cholesterol). Too many of these foods can lead to the thickening of the arteries and heart disease. Whereas vegetable fats, such as certain vegetable oils, avocados, margarine and some nuts contain unsaturated fats.

The best sources of essential fatty acids can be found in oily fish, pumpkin seeds, walnuts, linseeds, rapeseed oil, soybean oil and other vegetable oils. Daily fat intake should not go below 20g. Low levels of fat intake can lead to health problems including dull, flaky skin, poor circulation, poor blood clotting and hormonal imbalances.

Energy Requirements for Dancers:

* At least 50% from carbohydrates
* About 12 – 15% from proteins
* Less than 35% from fats.

**Vitamins**

**Are necessary for a variety of functions (eg formation of red blood cells, effective functioning of the immune system and bone strength and growth).**

**Fat-soluble vitamins**

Found mainly in fatty foods and animal products such as vegetable oils, milk and dairy foods, eggs, liver, oily fish and butter. You don't need to eat foods containing them every day… because your body stores these vitamins in your liver and fatty tissues for future use. These stores can build up so they are there when you need them. However, if you have much more than you need, fat-soluble vitamins can be harmful.

Fat-soluble vitamins are: vitamin A, vitamin D, vitamin E, vitamin K .

**Water-soluble vitamins**

Water-soluble vitamins are not stored in the body, so you need to have them more frequently. If you have more than you need, your body gets rid of the extra vitamins when you urinate.  Water-soluble vitamins are found in a wide range of foods, including fruit, vegetables, potatoes, grains, milk and dairy foods. Unlike fat-soluble vitamins, they can be destroyed by heat or being exposed to the air. They can also be lost in water used for cooking. This means that by cooking foods, especially boiling them, we lose some of these vitamins. The best way to keep as many of the water-soluble vitamins as possible is to steam or grill foods, Water-soluble vitamins are vitamin C, the B vitamins and folic acid.

**Minerals**

**Minerals are necessary for three main reasons:**

* **building strong bones and teeth**
* **controlling body fluids inside and outside cells**
* **turning the food you eat into energy**

Minerals are found in foods such as meat, cereals (including cereal products such as bread), fish, milk and dairy foods, vegetables, fruit (especially dried fruit) and nuts.

Essential minerals include calcium and iron, although there are also many other types of minerals that are an important part of a healthy diet.

[Vitamins and Minerals abridged from http://www.nhs.uk/conditions/vitamins-minerals/Pages/vitamins-minerals.aspx, accessed: 22.07.16]

**Fashion Fix!**

**How To Look Good in Your Dance Exam**!

|  |  |
| --- | --- |
| **HAIR****Scraped back off face,****Very neat.** | **Hair should be SCRAPED back off your face.** No fringes, no bangs (two strands at the front) and no bits tucked back behind your ears. Hairspray, grips, hairbands – use them all. Ideally aim to get your hair into a bun. A neat bun. A beautifully neat, tidy bun which has been similarly hair sprayed and made to look perfect. Your hair should be stuck down so that there is no chance of it falling into your eyes.  |
| **Modest or no make-up. Absolutely no finger-nail varnish nor toe-nail varnish.** |
| **TOP HALF****Black,****Sleeves,****No undies showing,****Close fitting,****No jewellery** | T-shirt should be black and close-fitting so technique is visible.  |  Short-sleeve or long-sleeve acceptable. (No vest tops and no strap tops).High neck for modesty. (Nobody wants to see what you have underneath your top when you bend forwards!) | **Do not** let any underwear hang out. (Ginger Spice fashion faux-pas!). |
| **BOTTOM HALF****Black,****Close-fitting,****Opaque,****Worn high,****Not worn under heels,****No undies showing,****BARE FEET** | They should be **no longer than ankle length** and should **NEVER** go under your heels (you get marks for health and safety). | Your bottom half should be plain black trousers or leggings. They should be close fitting so that the examiner can clearly see the lines of your body and check that your technique is accurate (eg. Bending your knees properly when landing after a jump).  | AND PLEASE ensure they are opaque… (not see-through). Nobody wants to see your underwear. |
| Please wear your trousers or leggingshigh-ish. NOBODY wants to see this. NOBODY. | **BARE FEET**AND**NO JEWELLERY!** |

**Safety Comprehension Task**

**Read this information and then answer the questions**

Hint: Use a highlighter to pick out any important facts or key words.

[*AQA GCSE Dance,* Maggie Lunie, Liz Dale, Lyn Paine, pp24 - 31]

**Room Safety**

Before dancing we should always check that our environment is suitable. A safe temperature to work at is 21degrees Celsius. It may become unsafe to dance if the temperature falls below 18 degrees Celsius so if you feel it’s getting cold – check a thermometer! You should also cover your midriff (tummy) to keep your lower back warm (and to improve aesthetic appearance).

In a dance studio there are often some hazards which need to be made safe before rehearsals should begin:

* *Room being too small*
* *Too many people in the space*
* *The ceiling too low*
* *Pillars*
* *Chairs, props and other pieces of furniture*
* *A floor that splinters or is slippery*
* *No ventilation*
* *Poor lighting*
* *Ballet barre not attached firmly*
* *Mirrors that are not made from safety glass*
* *Trailing wires*

**Warming up and Cooling Down**

Every lesson you should warm up thoroughly to *reduce the possibility of injury, improve performance and to prepare psychologically (so your mind is focused!).*

There are four stages to an effective **warm up:**

* 1) gentle pulse-raising (eg *slow walking in different directions and to varying tempos, slow jogging on the spot, changing direction, dodging imaginary obstacles or short, simple combinations of the above)*;
* 2) joint mobility (eg knee bends, isolations and combinations of circling/reaching, leg and arm swings);
* 3)flexibility (eg stretches which involve the big muscles in the body). A dynamic stretch involves s*low, controlled movements through the full range of motion.*
* 4) core stability (eg plank position).

Equally, we really should **cool down** at the end of each lesson too. Cooling down:

1. Allows the heart rate to gradually return to normal,
2. Prevents the build-up of waste products or toxins such as lactic acid in the muscles (thereby helping to prevent muscle stiffness and soreness) and
3. It also prevents pooling of blood in the muscles, which can cause you to feel dizzy (due to reduced blood supply to the brain).

**Difficult movements**

When dancers perform there are several things they can do to be safe. One of them is to ensure that the bony parts of the body do not touch the floor during slides. Instead only flat surfaces should. This reduces the risk of floor burns and bruises! So – you should keep your ankles and knees away from the ground and instead slide on the flat part of your calf muscle. Also, when landing from a jump you should bend your knees because they *act as shock absorbers and cushion the impact on landing.*

**Injury**

When dealing with an injury there are five stages that will help you cope with it. They are referred to as RICED.

R *Rest – stop the activity*

I *Ice – apply in a wet towel for ten mins at intervals for the first 24 hours*

C *Compression – apply a moderately firm bandage*

E *Elevation - raise the injury and keep it that way for 24hours*

D *Diagnosis – go to the doctor’s if you are concerned.*

Good nutrition will also help you recover faster!

**Did you know:** A bag of peas or ice cubes covered with a damp cloth makes a good, inexpensive cold-pack.

**Hydration quiz**

1. What is the recommended amount of water to drink per day for the average person? (1 mark)
2. What can you do to keep the body hydrated and working at optimum level? (1 mark)
3. How can you tell that you are dehydrated? (1 mark)
4. What is lactic acid? (1 mark)
5. What are the three stages the body goes through when experiencing lactic acid build up? (3 marks)
6. When you sweat, what three things does the body lose? (3 marks)

**Protein Quiz**

1. What two things do proteins do to muscles? (2 marks)
2. Name three animal products that you can find protein in. (3 marks)
3. Proteins are also required to do what three things? (3 marks)
4. How much protein should a general adult have per kg of body weight? (1 mark)
5. How much protein should a female dancer have per kg of body weight? (1 mark)

**Carbohydrates and Fats Quiz**

1. What percentage of a dancer’s energy should come from carbohydrates? (1 mark)
2. How many grams of fat should a dancer take as a minimum per day? (1 mark)
3. What are the two main carbohydrates? (2 marks)
4. Name three types of simple sugars (3 marks)
5. Name one food item which is high in cholesterol (1 mark)
6. Name one of the best sources of essential fatty acids (1 mark)
7. What is it that can lead to health problems including dull, flaky skin and poor circulation? (1 mark)

**Vitamins Quiz**

1. Where are fat-soluble vitamins mainly found? List three foods (3 marks)
2. Where in your body do fat-soluble vitamins get stored? (1 mark)
3. Name two vitamins that are fat-soluble (2 marks)
4. How does the body get rid of extra water-soluble vitamins? (1 mark)
5. What can heat or being exposed to the air to do water soluble vitamins? (1 mark)

What two methods of cooking food are the best ways to keep as many of the water soluble vitamins as possible? (2 marks)

**Minerals Quiz**

1. What are the three main reasons that minerals are necessary? (3 marks)

Name two food types where minerals can be found (2 marks)

**GCSE Dance**

**SAFETY**

**COMPREHENSION SHEET (Quiz)**

1) What are the three reasons you need to warm up?

2)There are four stages to an effective warm up: gentle pulse-raising, joint mobility, flexibility and core stability.

KEY WORDS

a) Describe one gentle pulse-raising activity:

b) Describe one joint mobility activity:

c) Describe one flexibility activity:

d) Describe one core stability activity:

3) What is a dynamic stretch?

4) At the end of the lesson we should cool down. Briefly explain the three reasons why.

5) When dealing with an injury there are five stages that will help you cope with it. They are referred to as RICED. What do each of these letters stand for?

KEY WORDS

R \_\_\_\_\_\_\_\_\_

I \_\_\_\_\_\_\_\_\_

C \_\_\_\_\_\_\_\_\_

E \_\_\_\_\_\_\_\_\_

D \_\_\_\_\_\_\_\_\_

6) What speeds recovery from injury? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7) When landing from a jump you should bend you knees. Why is this?

8) Why is it important to wear tops that cover your midriff (tummy)?

9) What is a safe temperature to work at? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10) Describe some hazards or obstructions which could make a rehearsal space unsafe:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Exam Style Questions:**

1. Describe two thing you could do to prevent injury before it happens. (2 marks)
2. Describe something different that you have had to do safely within one of your exercises or dance and explain why it was safe.

2a) Description of safely performed movement: (1 mark)

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2b) Explanation of why it was safe: (2 marks)

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1. If you were to gain an injury what should you do? (5 marks)

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**GCSE Dance**

**SAFETY**

ANSWERS

**COMPREHENSION SHEET**

**Read pages 24 – 31 of *AQA Dance GCSE by Maggie Clunie* to find the answers to the following questions:**

1) What are the three reasons you need to warm up?

* *To reduce the possibility of injury*
* *To improve performance*
* *To prepare psychologically*

2)There are four stages to an effective warm up: gentle pulse-raising, joint mobility, flexibility and core stability.

1. Describe one gentle pulse-raising activity:

(any one of the following answers)

* *Slow walking in different directions and to varying tempos*
* *Slow jogging on the spot, changing direction, dodging imaginary obstacles*
* *Short, simple combinations of the above.*
1. Describe one joint mobility activity:

(any one of the following answers)

ANSWERS

* *Knee bends*
* *Isolations and combinations of circling / reaching*
* *Legs and arm swings*

c) Describe one flexibility activity:

* Stretches which involve the big muscles in the body
1. Describe one core stability activity:
* *eg plank position*

3) What is a dynamic stretch?

* *Slow, controlled movements through the full range of motion.*

4) At the end of the lesson we should cool down. Briefly explain the three reasons why.

* *Allow the heart rate to gradually return to normal*
* *Prevent the build-up of waste products or toxins such as lactic acid in the muscles, thereby helping to prevent muscle stiffness and soreness*
* *Prevent pooling of blood in the muscles, which can cause you to feel dizzy due to reduced blood supply to the brain*

5) When dealing with an injury there are five stages that will help you cope with it. They are referred to as RICED. What do each of these letters stand for?

R *Rest – stop the activity*

I *Ice – apply in a wet towel for ten mins at intervals for the first 24 hours*

C *Compression – apply a moderately firm bandage*

E *Elevation - raise the injury and keep it that way for 24hours*

D *Diagnosis – go to the doctor’s if you are concerned.*

ANSWERS

6) What speeds recovery from injury?

* *Good nutrition*

7) When landing from a jump you should bend your knees. Why is this?

* *Knees act as shock absorbers and cushion the impact on landing.*

8) Why is it important to wear tops that cover your midriff (tummy)?

* *Keeps lower back warm and improves aesthetic appearance*

9) What is a safe temperature to work at?

* *21 degrees C. If the temperature falls below 18degrees C it is not safe to dance.*

10) Describe some hazards or obstructions which could make a rehearsal space unsafe:

* *Room being too small*
* *Too many people in the space*
* *The ceiling too low*
* *Pillars*
* *Chairs, props and other pieces of furniture*
* *A floor that splinters or is slippery*
* *No ventilation*
* *Poor lighting*
* *Ballet barre not attached firmly*
* *Mirrors that are not made from safety glass*
* *Trailing wires*

Methods you can use to improve your performance

Create your own

www.betterhealth.vic.gov.au

**Exam style question**(cover the above words first):

List three reasons why dancing can be beneficial to your health (3marks):

1

2

3

Benefits of Dance

Increased muscle tone and strength

Weight management

Stronger bones and reduced risk of osteoporosis

Better coordination, flexibility and agility

Improved balance and spatial awareness

Increased physical confidence

Improved mental functioning

Improved general and psychological well-being

Greater self-confidence and self-esteem

Better social skills

**Dance Glossary**

|  |  |  |
| --- | --- | --- |
| Key word | Definition | Key things to remember |
|  |  |  |
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Expressive Skills

Physical Skills

Technical Skills

• relationship content - **for group performance only** (eg lead and follow, mirroring, action and reaction, accumulation, complement and contrast, counterpoint, contact, formations)

• timing content

• rhythmic content

• movement in a stylistically accurate way.

* posture

• alignment

• balance

• coordination

• control

• flexibility

• musicality

• sensitivity to other dancers

• communication of choreographic intent, including mood(s), meaning(s), idea(s), theme(s) and/or style/style fusion(s).

* projection

• focus

• spatial awareness

• facial expression

• phrasing.

* action content (eg travel, turn, elevation, gesture, stillness, use of different body parts,floor work, transfer of weight)

• dynamic content (eg fast/slow, sudden/ sustained, acceleration/deceleration, strong/light, direct/indirect, flowing/abrupt)

• spatial content (eg pathways, levels, directions)

• mobility

• strength

• stamina

• extension

• isolation.

What will I get marked on in my Assessment?

Mark Grid

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Marks | Demonstration of physical skills and attributes safely to reproduce set phrases | Demonstration of technical skills accurately and safely to reproduce set phrases | Demonstration of expressive skills to reproduce set phrases | Exercises | Dance | Total |
| 4 | **Exceptional ability to demonstrate physical skills and attributes safely.** | **Exceptional ability to demonstrate technical skills accurately and safely.** | **Exceptional ability to demonstrate expressive skills** |  |  |  |
| 3 | **Highly developed ability to demonstrate physical skills and attributes safely.** | **Highly developed ability to demonstrate technical skills accurately and safely.** | **Highly developed ability to demonstrate expressive skills** |
| 2 | **Sound ability to demonstrate physical skills and attributes safely.** | **Sound ability to demonstrate technical skills accurately and safely.** | **Sound ability to demonstrate expressive skills** |
| 1 | **Limited ability to demonstrate physical skills and attributes safely.** | **Limited ability to demonstrate technical skills accurately and safely.** | **Limited ability to demonstrate expressive skills** |
| 0 | **Nothing worthy of credit** | **Nothing worthy of credit** | **Nothing worthy of credit** |  |