

Chapter **2**

Perform in the Memletic State

You learn faster if your cells, body and mind are in good condition, or good “state.” Memletic State describes the best state for learning. This chapter shows you what Memletic State is, and how to achieve it. We look at the benefits of general health and fitness right through to the latest results from brain research. Being in Memletic State doesn’t just increase your memory and learning performance. Memletic State is the peak condition for performing well in many human endeavors, from flying a plane to playing football.

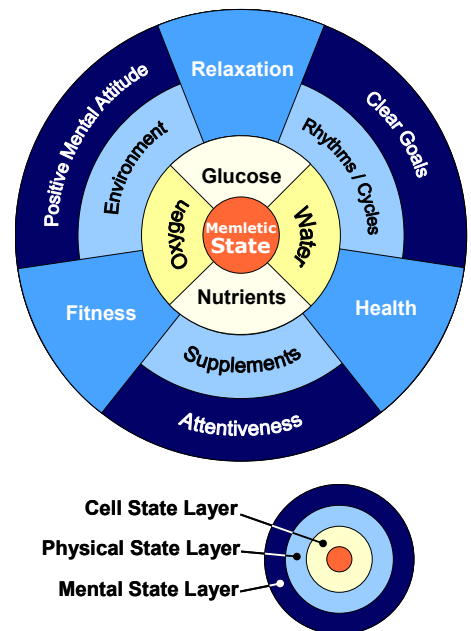
This is a summary of the Memletic State chapter from the Memletics Accelerated Learning Manual. You can find more information on the manual by visiting <http://www.memletics.com/manual>

Memletic State is when your body and mind are in the best condition for learning. This chapter tells you how to get in that state. Applying the information in this chapter will increase your learning performance, without using any of the other techniques in this book. Being in Memletic State also helps improve your health and well-being, with resulting benefits in many other areas of your life.

I’ve grouped the major contributors to Memletic State into three layers. These are the cell, physical and mental state layers. In summary, the elements that make up each of these layers are:

- **Cell State Layer:** Water, Glucose, Oxygen, and Basic Nutrients.
- **Physical State Layer:** Health, Fitness, Relaxation, Environment, Sleep and Body Rhythms, and Supplements.
- **Mental State Layer:** Health, Fitness, Relaxation, Attention and Concentration, Positive Mental Attitude, and Goals.

The learning state diagram below shows these layers and elements. Cell state is fundamental and therefore the innermost layer. You will find it hard to learn without satisfactory functioning of cells. The next layer is the physical state layer. These elements impact how well you breathe, circulate blood, fight off illness and more. The outer layer is the mental state layer. The elements of this layer are



within our mind. Notice how cell state layer supports the physical state layer, and the physical state layer supports the next layer out, the mental state layer.



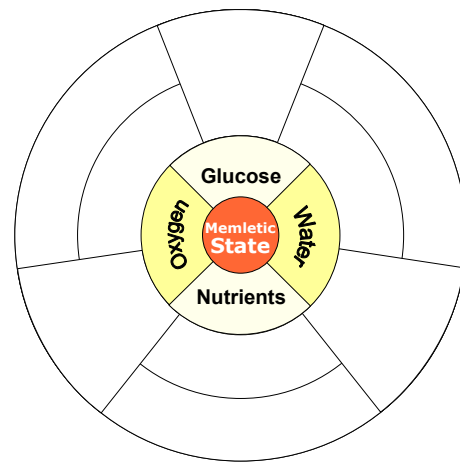
CAUTION. This chapter includes information on health and fitness. This is not specific advice for your personal situation. Applying the content in this chapter may involve changes to your diet, physical activity levels and other day-to-day behaviors. If you plan to make changes to these areas, you should always consult a medical practitioner or other appropriate specialist. Discuss activities that may affect particular illnesses or conditions you have. This applies in particular to:

- Breathing exercises if you have any lung illness or condition
- Physical exercise if you are unfit or have a heart or lung condition.
- Supplements, especially if you suffer any form of illness or are on any medication.

Cell state—ensure your brain cells are well nourished

Good cell state ensures an adequate supply of materials that brain cells, primarily neurons, need to work. Like other human cells, Neurons need water, energy and oxygen. Neurons and other cells around them also need certain nutrients to work effectively. The lack of any of these basic materials significantly decreases your ability to learn, even to live. Ensuring your brain has a good supply of all these materials provides a solid base on which the other learning state layers can perform well.

The four materials we examine in cell state are glucose, oxygen, basic nutrients and water.



Content in the book includes:

Glucose (Energy)

- The brain's need for energy, the impact of a lack of glucose in the brain, and how you get energy into the brain.
- The best foods for brain energy, and why. What's the difference between complex carbohydrates and sugary foods?
- What foods to avoid, and the impact of insulin on energy levels in the blood
- Tips – including exams and the impact of large meals on energy levels (especially the Sunday lunch)

Oxygen

- The brain's need for oxygen, and how it gets into the brain. What happens to oxygen usage during learning? What you can do to improve your oxygen use?
- How to increase blood efficiency, including good foods, the role of Iron, the impact of Iron deficiency, and how Vitamin C helps.

- How to improve lung efficiency – including foods, the role of fitness, and new lung exercisers such as Powerlung and Powerbreath.
- How to increase pulse rate and strength, both during learning and longer term. Longer term ideas include cardiovascular fitness, and interval training
- When to focus on breathing: Before learning, during learning, after learning, and during day-to-day activities. Is deep breathing always good for you (what about asthma)? Find more on abdominal breathing on the web.

Basic Nutrients

- The role of key nutrients in the brain – fatty acids for building your brain, amino acids to help it communicate, and micronutrients to protect it.
- What is the role of fatty acids in maintaining the brain cell membrane or “skin” – including the function of lipids? What are the right fats to include in your diet – including Alpha-linolenic acid or ALA (part of the “omega-3” family of fatty acids) and Linoleic acid or LA (part of the “omega-6” family of fatty acids.)
- Which of these fats can come from flax seeds, chia seeds, walnuts, green leafy vegetables, expeller cold-pressed sunflower, safflower, corn, sesame oils, and sea vegetables? Can you also get these from fish?
- What is the best ratio of these two types of fats? Why do western diets contain poor ratios, and what can you do about it? Is vegetable-based oils part of the answer? Should you include more cold-water fish in your diet, such as salmon, mackerel, sardines, and trout?

Amino acids – connect your brain

- The role of neurotransmitters in the brain, and how your diet influences these.
- The proteins that provide basic materials for neurotransmitters.
- Which foods contain complete versus incomplete proteins, including Fish, meat, eggs, cheese and yoghurt, grains, legumes, seeds and nuts
- Whether being vegetarian can affect your protein intake, and how traditional diets and combinations can help.

Micronutrients – protect your brain

- What are free radicals – and how can they damage the brain?
- How does the body protect itself from free radicals – the role of antioxidants
- What are some of the key antioxidants? Can Vitamin E, Vitamin C, glutathione, coenzyme Q10, and lipoic acid help?
- The role of diet on antioxidant levels, including vegetables and fruit.

Water

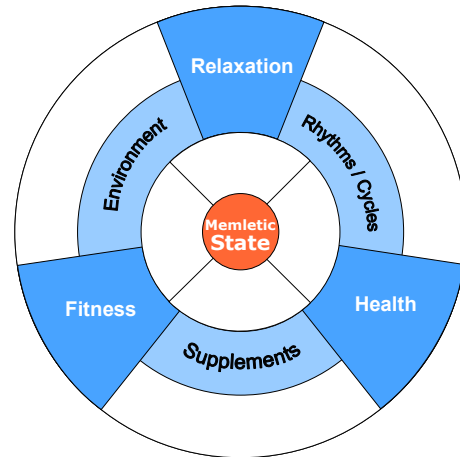
- The role of water in the body, including transport, protection and metabolism.
- The impact on dehydration on learning. Typical symptoms, including headaches, sleepiness and dizziness.
- Is the eight glasses a day guideline correct? How to tell if you are consuming enough water. What color should your urine be?
- Is thirst a reliable indicator of fluid levels?

- When to adjust your water intake, including exercise, temperature, and consumption of coffee or alcohol.
- The impact of stress and adrenaline on your bladder.

Physical state—keep your body systems in good shape

The next learning state layer, the physical layer, deals with critical body and brain systems that support good learning state. Good physical state consists of:

- **General health and nutrition.** The overall health of your body system influences your ability to learn.
- **Physical fitness.** Bodily fitness supports good learning.
- **Physical relaxation.** A relaxed state contributes to good learning.
- **Physical environment.** The physical environment should support your bodily needs.
- **Body and brain rhythms.** Sleep supports learning. Knowledge of other body and brain rhythms also helps your learning.
- **Dietary supplements.** Some dietary supplements may improve learning and brain performance.



Content in the book includes:

General Health and Nutrition

- How general health and nutrition contributes to optimum learning performance.
- Includes information on diet, exercise, general stress and relaxation, illnesses and injuries, positive mental attitude outlook, and taking responsibility.
- Also includes information on the harmful impact of alcohol and psychedelic drugs (such as marijuana, ecstasy and others). Which is worse for the brain – long term alcohol consumption or binge drinking?

Physical Fitness

- The positive impact of physical fitness on learning.
- Includes information on blood flow & circulation, blood quality, lung efficiency, and immune and lymphatic system.
- Basic guidelines for fitness, including calculations for optimum exercise heart rate and maximum heart rate.

Physical Relaxation

- Do programs such as SuperLearning, the Mozart Effect and others provide significantly enhanced learning?
- The role of relaxation, including its impact on concentration and stress.

- Includes a basic relaxation exercise
- When to do relaxation exercises – before, during or after learning or study?
- Further information on relaxation exercises, such as Deep Breathing, Progressive Muscular Relaxation (PMR), Autogenics, Sensory Deprivation (Float Tanks), Massage, and Biofeedback.

Physical Environment

- How the physical environment influences your learning, including temperature, air, light, furniture, and services (rest rooms, break areas etc).
- What is the best temperature for learning? Can small variations influence learning performance?
- Why is fresh clean air important? Which impacts you first – carbon dioxide or oxygen levels? How fast does carbon dioxide build up in a small space? What is the impact of heating? Have you heard of “sick buildings?”
- How much light should you have while learning? What about during presentations, videos and slide shows? Does full spectrum lighting provide any benefits, or are standard artificial lights just as good as sunlight?
- How does furniture affects your learning potential? Does muscular tension impact learning? Where should you sit in class?
- If you provide a learning location, should you consider easy access to restrooms, break areas, food and water, and other services such as phones?

Body and Brain Rhythms

- The cycles and rhythms the body and brain runs to, including the circadian rhythm and the ultradian rhythm. Also covers “brain drain” – the natural replenishment requirements of brain glucose and neurotransmitters.
- The circadian rhythm. Why it’s important to get sleep before and after your lessons, the level of alertness throughout the day, and the best times of the day for rest (“siesta”), brainwork, and physical activity. Also information on the lark-owl myth, and how you can change your sleeping habits.
- The ultradian rhythm. How to make the most of this intra-day rhythm.
- Brain drain. How prolonged study can drain the brain of neurotransmitters and glucose, and what you can do about it.
- Planning for optimum breaks during study.

Dietary Supplements

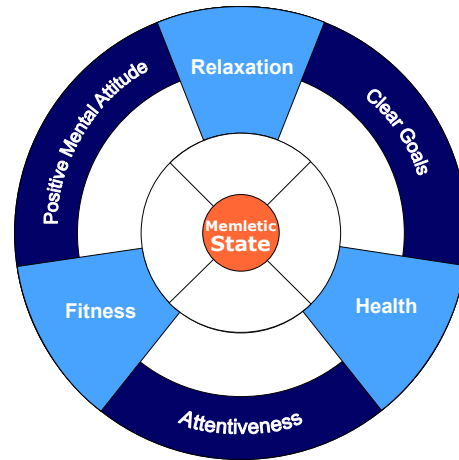
- Drugs and substances improve memory and learning.
- Some of the risks, contraindications (side effects) and other issues associated with other supplements.
- Where to find further information on supplements & clinical trials
- Tips for buying and using supplements
- Details on five memory-enhancing supplements, including B-group vitamins, Ginkgo Biloba, Brahmi (Bacopa Monnieri), caffeine and Acetyl-L-Carnitine. This also includes dosages, usage and contraindications.

- Also includes detailed information on how to use caffeine for best effect, as well as caffeine content in standard drinks such as coffee, tea and cola soft drink.
- Examples of some particular supplements to avoid.

Mental state—get your mind ready for learning

The last learning state layer, mental state, deals with the mind. The inner state layers (cell and physical) influence the mind and its workings, however this layer is also influenced by our own thoughts. Six key contributors to good mental state are:

- **General mental health.** Good mental health supports learning performance. Stress and Depression are prevalent today and have a harmful effect.
- **Mental fitness.** Like physical fitness, mental fitness benefits the whole brain. You can develop mental fitness through mental exercises and other activities.
- **Mental relaxation.** Mental relaxation also plays a role in supporting good mental performance.
- **Attention and concentration.** If you concentrate and pay attention when you learn, your content has a much better chance of making it into your long-term memory.
- **Positive mental attitude.** Your self-image influences your memory and learning performance. You can alter your self-image through self-talk.
- **Clear, desirable and achievable goals.** If you don't believe in the direction your learning is taking you, it's unlikely you can sustain good learning performance.



Content in the book includes:

General Mental Health

- General activities that contribute to good mental health.
- Disorders that can negatively impact learning, such as anxiety disorders, Attention Deficit disorders, Borderline Personality Disorder, Obsessive-Compulsive disorders, Panic Disorder, Post-Traumatic Stress Disorder, Schizophrenia, and Phobias.
- More information on the two most prevalent mental health issues in the western world today—excessive stress and depression.
- For stress – how stress impacts learning because of cortisol, and its long term impact on the hippocampus
- For depression – how a lack of a key neurotransmitter called serotonin impacts learning.

Mental Fitness

- A comparison of mental fitness to physical fitness.

- Details on specific exercises that can improve your mental fitness, including Neurobics, Music, Signing, games and puzzles (such as “concentration”), software (eg IQ builder, MindGym, Brain Builder), and travel.
- More exercises include: Learn another language, develop your social networks, do volunteer work, read more widely, try a new hobby, get creative – learn to write, draw, or paint; learn photography, change careers, or learn to fly!

Mental Relaxation

- Mental relaxation and its role in controlling stress.
- Further information to dispel the “highly accelerated learning through relaxation” and “classical music” learning myths.
- The best times to use relaxation.
- Details on some common mental relaxation techniques, such as meditation, guided imagery, music, and anchoring.
- Using these techniques with physical relaxation techniques
- The impact of stress, fear and nervousness on learning, and using relaxation to control it.

Attention and Concentration

- The need for attention and concentration during learning.
- The influence of other Memletic State principles on attention and concentration.
- Short term and longer term exercises to improve attention and concentration,
- Short term techniques such as “be here now”, the spider approach, paragraph marking, distraction logs, topic switching, and interactivity.
- Longer term techniques such as games, meditation and other exercises. Also includes important information on expensive memory and concentration improvement software.
- Specific information on how the environment impacts your concentration. How to reduce distractions from sources such as friends, family and colleagues, electrical noise, and peripheral vision. Where to sit in a library, and how to train yourself to better handle distractions.

Positive mental attitude

- How our beliefs significantly influence how well we learn and remember.
- How your self-image interacts with two other parts our mental attitude – Self-Talk and Self-Esteem.
- How to change your self-image via changing your self-talk.
- Specific information on using assertions, mental firewalls and anchoring to help change your self-talk.

Clear, Desirable and Achievable Goals

- The role that clear, desirable and achievable goals play in learning.
- Key ways to highlight your goals, such as writing objectives, setting rewards and using images (such as photographs).

- (More information is in Memletic Approach).

Chapter summary

Being in Memletic State means you are in peak condition for learning. It also helps you perform well in many other areas of your life.

You've seen how to make sure your cells get the materials they need to work correctly. Glucose is your brain's energy source. Your cells use oxygen to create energy from glucose. Water is important for transporting materials as well as protection. Basic nutrients help run the brain and protect it.

Good physical state comes from keeping your body systems in good condition. We've discussed general health, nutrition and fitness. You've seen the role relaxation plays in learning, and you know that the physical environment has a large influence on physical state. You now understand how important sleep is to learning, and how body and mind state change throughout the day. You've seen which supplements can improve brain performance, and you now understand the need for caution with all supplements.

Mental health, fitness and relaxation are three key contributors to good mental state. You now have some ways to keep up your attention and concentration during learning. You've seen how a positive mental attitude influences your mental state, as do clear, desirable and achievable goals.

You may already have a good idea of which parts of Memletic State you already have under control, as well as which parts may need more work. I covered Memletic State so you could start working on Memletic State while you read the rest of the book. In the next chapter on Memletic Process, we look at the steps you follow for fast learning and long-term recall.