

HOW TO LEARN & MEMORIZE MEDICAL TERMINOLOGY



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WITH
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Why You Need To Read This Book

Medical students around the world dream of passing their exams and becoming successful doctors who understand the human body and everything associated with its healing. Yet so few will ever develop the language and terminology needed to express their medical knowledge so freely. They will never use the nuances and layers of meaning unique to the field of medicine. Even with the best intentions and the best of instructors, medical students struggle to learn enough medical terminology and concepts to engage in the dynamic “bedside” candor needed to become a medical specialist in demand.

Why is medical terminology such a struggle? Many medical students blame a lack of time. Some claim that memorizing the terms they need to know is too hard. Others try to learn by rote, desperately copying the words they need to learn hundreds of times by hand, or by sorting through index cards, hour after frustrating hour. The biggest excuse heard in medical schools around the world is the saddest of all: most people claim that they have a bad memory.

I sympathize with this. I used to love claiming that I have a poor memory. In fact, the first time I studied a foreign language, I silently swore in English so vehemently about my “bad memory” that I would have been kicked out of class had I spoken my frustration out loud. And when my co-author, Jamie Clarke, attended medical school, he constantly found that pages from books in the campus medical libraries had been torn out. Some people think this vandalism comes from competitive attempts to prevent other students from passing the exams, but in reality, it’s because these students didn’t want to sit and take notes. Worse, they didn’t have a memorization strategy that would have saved them a lot of time and effort in the end.

I remained irritated with what I perceived to be my poor memory until I decided to do something about it. I studied memorization and ultimately devised the unique Memory Palace system described in this book. It is an easily learned set of skills based around the alphabet that you can completely understand in under an hour. It is a system that will have you acquiring countless medical terms at an accelerated pace within just a short few hours after that. Instead of struggling to learn and retain one or two words a day, you will find yourself memorizing dozens of terms every time you practice using my strategies. You can apply these same strategies to memorizing case studies as well.

Within a month of creating my own 26-letter Memory Palace system for foreign language study, I knew the meaning and sound of 260 individual and related words. Within three months, I found myself reading relatively complex fiction, poetry and newspapers, material in my target language that had previously sent me riffling through the dictionary every few seconds. When I met Jamie, he too had developed an advanced memorization system for himself, but had to admit that nothing he had ever read trumps the technique taught in this book. This made him anxious to help me develop this new book from the Magnetic Memory series for medical students and even established doctors so that they too can easily recall all of the medical terminology they want, wherever they want and whenever they want.

I originally developed this system to help me learn German while living in Berlin. Later, I applied the same techniques to Spanish because of the Spanish-speaking friends I made while living in Germany. In both cases, I quickly found myself conversing with people about film, music, philosophy and many other subjects that are dear to me. I was able to visit doctors and dentists without the help of a native speaker and could conduct my banking and other chores with ease. It would take this entire book to express just how many benefits I experienced, all because I took action and developed a system that enhanced my vocabulary substantially every time I practiced.

Naturally, the people around me witnessed my progress with these languages and literally interrogated me to get at my language-learning knowledge. My “guerilla” memory tactics have helped many people on their journey towards fluency, particularly because of the limited amount of time it takes to “install” my system in their minds for easy storage and retrieval of the vocabulary they have placed within their memory palaces.

It pleases me immensely to help people memorize foreign language vocabulary, especially when people regularly describe to me how easily they were able to memorize their first 100 words in under an hour using my methods. These achievements are thrilling to me, thrilling for the people who use the techniques and they will thrill you too as you develop yourself as a medical practitioner.

This edition of *How to Learn and Memorize Medical Terminology* is for you. Whether you are a medical student, nurse, medical secretary or even just someone interested in the field of medicine who struggles with learning, retaining and producing medical terminology, Jamie and I have designed this book so that as soon as you understand the system, you can sit with a medical textbook anywhere and at any time and permanently install any term that you wish for easy and accurate recall. To this end, I have written this book primarily for those medical students who have the burning desire to learn a term once and recall it and its meaning without frustration of any kind within minutes, if not seconds of having learned it.

Three obstacles stand between you and memorizing the vast quantities of medical terminology you’ll need to achieve your dreams of working in this field.

The Belief That You Don’t Need A Dedicated Memorization Strategy For Learning and Memorizing Medical Terminology

Although repetition is always important when it comes to any form of learning, it is a shame that so many people who study medicine wind up relying on rote learning. Anyone who has tried to learn a second language or memorize medical, legal or any kind of terminology has experienced the fantasy that simply repeating a phrase again and again will award us permanent ownership of those words.

Stop fooling yourself.

I spent six months learning German in a school in Berlin. I cannot say I learned nothing because I walked away with a strong sense of German grammar and some confidence with respect to conversational speaking.

But I left the class with an extremely limited vocabulary, one based almost entirely on the cognates that German shares with English. Looking back, I’m shocked my language school at no point taught any dedicated memorization skills. Instead of sitting through long classes based upon the repetition of one or two simple discussion phrases and grammar exercises in written and oral form per class, I could have been supplementing this experience with the Memory Palace system I eventually devised for myself. With a dedicated memorization strategy, I could have been learning dozens of words per day. Learn the techniques taught in this book and you’ll be doing the same with medical terminology and all aspects of the medical field you are currently studying.

The Belief That Memorization Strategies Won’t Work For You

People often tell me that the memory techniques I teach will not work for them. But I always confidently respond by saying that not only will these techniques work if for them if they follow the exercises in this book: these techniques will literally blow them away when they see how quickly the mental database of medical terms develops.

And there is good evidence to support the use of memorization strategies in language learning. The Stanford University study conducted by Richard C. Atkinson is a representative example of many such studies that support the memorization techniques. Atkinson humorously derides the rote learning approaches taught in most foreign language classes by calling paper a “cheap memory device,” one that is rather worthless compared to the memorization strategies you’re about to read about and add to your palette of language learning techniques.

Atkinson concluded his study by arguing that the language-learning curriculum of all language schools and classes should include memorization techniques because students make such incredible leaps using these indisputable methods. Jamie thinks medical schools should do the same. Try out the technique taught in this book for yourself and you will marvel at the progress you’ll make. Guaranteed.

The Belief That Memorization Strategies Are Too Much Work

You will need between 1-2 hours to set up the full system taught in this book and another 2-3 hours to really get the hang of the method and pick up speed. The steps are easy, fun and you can memorize new medical terms as you are learning the system. As soon as you’ve understood the principles of memorization and started working with the system taught in this book, you will be memorizing new medical terms by the dozens with consistent speed and accuracy. The best part is that this system will serve you for life and can be extended to memorizing just about any information you could ever want.

I have a suggestion for you before you turn the page and start your journey toward advanced memorization skills. Believe in the power of your mind. When I started learning German and Jamie was in medical school, we both constantly told ourselves that the material was too difficult and that our brains were ill equipped. Worse, like so many people, we both acted as if we had been born with poor memory by virtue of birth.

Don’t be like this. The ability to memorize large quantities of medical terminology with near-100% accuracy opened the doors of the world for me, and this technique will do the same for you.

Moreover, when we consider the importance of medicine, it is that much more important that we do not belittle ourselves. Your mind is as powerful as mine, and by developing a positive mental attitude learning my system and putting in a small amount of effort will be easy, fun and demonstrate to you the powerful abilities of your own mind every single day for the rest of your life.

You will love adapting this system to your individual learning style and enjoy massive success as a result. Give us 5 hours of your time as you teach yourself how to use this system and we will give you the techniques and abilities you’ll need to memorize all the medical that you have ever dreamed possible without end.

How to Learn &

Memorize Medical Terminology ...

Using a Memory Palace Specifically Designed for
Achieving Medical Fluency

By

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& Jamie Clarke, MD

For Medical Practitioners Everywhere

Table of Contents

Introduction

Chapter One: The Main Principles

Chapter Two: Applying the Main Principles to Learning and Memorizing Medical Terminology

Chapter Three: Notes on the Creation and Management of Medical Terminology Memory Palaces

Chapter Four: How to Extend Memory Retention Using Compounding Exercises & Generate Excitement for Memorizing Medical Terminology

Chapter Five: Example Memory Palace for the Letter D

Chapter Six: Example Memory Palace for the Letter M

Chapter Seven: Example Memory Palace for the Letter T

Chapter Eight: Building Focus and Overcoming Procrastination For The Achievement Of Medical “Fluency”

Chapter Nine: How to Use Relaxation for the Memorization of Medical Terminology

Conclusion

Further Resources for Memorization & Memory Techniques

About the Authors

WAIT!

I have created a Worksheet that goes along with this book. In order to receive it, send a blank email to learnandmemorize@zoho.com. As a reader of this book, you'll also receive a *free* subscription to the prestigious Magnetic Memory newsletter. After signing up, please check your spam box for my response and white list this email address.

Whilst subscriptions are currently free for readers of my books, I'm not sure how much longer I'll be making this offer. Subscribe now and get the only information that will keep your memory ***magnetic*** for years to come.

Introduction

I learned the Memory Palace method and radically redesigned the key principles for my own purpose out of desperation. Living in Berlin and spending five four-hour days a week for six months in a German language class was an amazing experience. Unfortunately, I did not learn nearly as much vocabulary as I did grammar because I did not have a deliberate strategy for memorizing the words I was learning. But I wanted one badly, and this chapter tells the story of how I came to develop the unique Memory Palace strategy taught in this book.

Before continuing, please note that although my own story of progressing from being someone convinced he had a bad memory to someone with a demonstrably fantastic memory revolves around learning a language, this introduction includes many valuable points you will benefit from as you pick up this skill. It is a story of triumph and is meant to set the foundations for your own success.

Before developing my method, I had never been shy of rote learning, but for some reason, the hours I spent repetitively copying out the same words over and over again did little more than strain my poor wrist. Thinking I just wasn't spending enough time with the rote exercises, I actually trained myself to write with my non-dominant hand. I think this was a useful thing to do purely as a brain exercise, but it in no way helped me memorize German vocabulary.

The one word I do remember from my attempts with rote learning is *allmählich*. This is the German word for "gradually."

But I soon grew tired of learning and memorizing German vocabulary "gradually." I had some familiarity with using mnemonics for my doctoral field exams and decided to look deeper into this subject. I spent countless hours online and in libraries searching for a memory system devoted specifically to language acquisition. I read countless books and listened to hours of audio programs. All of them were devoted to rote learning and I have still never found a book describing a vocabulary memorization system that lets me visualize and organize vocabulary words.

I quickly realized that I would have to create my own memorization methods. The system would have to enable me to establish new words in my mind so that I could instantly recognize them when I heard them or read them. I also wanted to be able to generate them for speaking whenever I needed them and be able to pronounce them correctly. I felt it was important for the system to reside almost entirely in my mind, though I quickly discovered that for the purposes of testing, written records would be very useful.

It never once occurred to me that designing such a technique would be easy or fun. In fact, once I found the solution, my heart was filled with dread at all the hard work it was going to be.

However, once I got started, I realized that it not only took only a short while to create the system, but it was also incredibly fun. And it made me feel good too. I believe that using the mind in this way is one of the most positive experiences a person can have. It wouldn't be for a few years before I started writing books on memory and having other authors and publishers approach me about developing the system for other fields, but it has been helping so many people memorize languages that it felt like a very good thing to do.

Before continuing, I would like to address an issue that people constantly raise: several readers of my books and clients have told me that people who succeed with memorization have a special gene that

the rest of us do not. They think that this gene allows such “geniuses” to develop personalized, but still relatively formal strategies for memorizing professional materials like medical terminology.

This is nonsense. The techniques described in this book can be used by anyone.

As I noted before, many people feel that memorization techniques don’t and won’t work for them. This is not an attitude I accept, particularly because I used to share it. I used to love telling people about my poor memory. When we do this, we essentially train the people around us to treat us this way, which reinforces our beliefs about our inefficient memories. It is a negative cycle. I broke free by learning these skills, and the fact of the matter is that when learned and used in the correct manner these memory techniques will change your life.

“Like a Ten-Speed bike, most of us have gears we do not use.”

Charles Schultz

I tell people who claim they have a bad memory that memorization techniques are like a bicycle. Everyone can use them. Not everybody does, but regardless of body shape, and in many cases even with certain physical hindrances, there are very few of us who cannot get on a bike and ride.

But bikes do not come in the form of one-size-fits-all. Bikes have adjustable parts, and like bicycles, the memory techniques taught in this book need to be adjusted by the person using them. Just as we need to re-angle the handlebars, or lower the seat on a new bike, the memory systems taught in this book will need tweaking. Once you’ve understood them and started to use them, you’ll find ways to suit them to your brain type (as opposed to body type).

Before we continue, I’d like you to realize that learning to memorize will reward you in ways that go beyond the importance of having access to medical terminology in your professional life. Using your memory to learn your field is fun to do, but it’s also a form of physical exercise. Memory work sends oxygen rich blood to your brain, improving health and helping to prevent diseases like Alzheimer’s and Dementia.

But you don’t have to drag yourself to the gym to achieve this. You can “work out” in your favorite armchair, while driving or sitting at the beach. You can develop your memory wherever you happen to be and practice the medical terminology you learn with ease because you’ll have every memorized word perfectly organized within the workout gymnasium of your mind.

When it comes to learning and memorizing medical terminology, there is no other book like this out there. And there is no other gymnasium quite like your mind. I do not believe in the “use it or lose it” principle, but I do know for a fact that what you do not use, you cannot benefit from. Start improving the natural abilities of your mind today.

I have written this book to train you in both the basics of memorization and more advanced techniques. My hope is that you will pass these skills on to everyone you know. It is important that you tell people about your memorization experiences because it will strengthen your personal expertise with the craft.

By the same token, I will show you things I’ve tried but that didn’t work for me. They may work for you, and by sharing them with you, I learn more about memorization myself. We should never discount a new memory strategy, because it may become useful later. Flexibility is key.

I will also show you how I have adjusted some techniques that did not initially help in ways that made them more workable for me. The emphasis here is always on adjustment and adaptation. The more you

work with these methods, the more you will see how you need to adapt them to your own personality and ways of thinking.

Much of this book is written in a conversational style, but each chapter ends with a set of action steps that you can use to begin implementing the techniques for yourself and think about incorporating into your studies immediately. The final chapters give you plenty of examples of how Jamie works with his own Memory Palaces using the techniques I to learn and recall medical terminology so that you can model how the system works in detail.

Finally, throughout this book, we address you not only as a learner of memorization skills but also a potential teacher. As previously mentioned, my hope is that you will not only learn these techniques, but also pass them onto others. It bears repeating: one of the best ways to learn a skill is to talk about what you've learned as quickly as possible. Put it this way: the more people who have better memory skills, particularly when applied to learning professions like medicine, the better our world becomes.

I normally don't wish my readers and students good luck on their memorization journey. This is because my goal is to give them the tools and skills that make luck irrelevant. But you do have my warmest wishes, and I look forward to hearing the stories of your success as a result of using these methods.

Ah, but since we're here to learn and memorize medical terminology, what the heck. Bona valetudo. Good health.

Chapter One: The Main Principles

There are three main principles involved in what I call “memory amplification” when teaching mnemonics to students and friends. I use this term because memory techniques do seem to “turn up the volume” of the mind. Many learners respond positively to this concept because it is easy to imagine their minds as radios “tuning in” on a signal and having a volume knob they can turn up in order to increase the receptivity of their minds.

The three principles you will learn in this chapter: **location**, **imagery**, and **activity**. Along with these principles, we will talk about **Preparation** and **Predetermination**.

Let’s look at each of these in turn. Keep in mind that each of principles is individually important and each are interrelated. Use them independently, and they will still help improve your memory. Use them together and your memory skills will soar beyond belief.

If you are interested in the history of memory techniques, I highly recommend reading this webpage:

<http://www.mundi.net/cartography/Palace>.

Joshua Foer’s recent book *Moonwalking with Einstein: The Art and Science of Memory* is also fantastic, but please be advised that this book covers more cultural history than specific guidance when it comes to building memory palaces for language acquisition. But if you’re serious about finding classroom methodologies that will directly impact how you absorb, retain and recall medical terminology, then you have everything to gain by reading all that you can on the topic of memorization, including Foer’s book.

Location

Location is part of, but not the entire picture of the memory palace concept. Locations are used to store imagery. The reason we use locations is because we tend to remember places we’ve been without exerting any effort, and this is one of the key principles of memory work: eliminate everything that you don’t have to work at remembering and build natural associations in those familiar places.

When thinking about locations for storing memories, try doing something that I did for myself. I once determined that I have lived in eight cities, twenty-five houses (or apartments) and sixteen neighborhoods within those cities. I have yet to count all the familiar houses that belong to my friends and extended family members, but surely the number is exponential.

Plus, the availability of locations is expanding all the time as I continue to meet new people and visit new places. There are even hotel rooms that I remember very well during stays all over the world. Then there is the path I took from a hotel in Paris to the Louvre. The short journey made such an impact on me that it has served me very well over the years.

The point is that we all have more territory in our minds than we could ever possibly hope to use for storing memories. The best part is that we can then sub-divide locations into individual stations. When you consider each apartment, home or building a “location,” then each individual room will be a station within that location.

Going through your mind and identifying the countless locations and all the individual stations you are familiar with is not difficult work. It is tremendously pleasurable and will amaze you when you consciously begin to realize just how much geography you hold in your mind.

As I'll discuss further on, I like to combine indoors and outdoors locations, all places that I know very well. There are some advanced ways that I use imaginary locations as well, and I will teach you these in one of the bonus chapters that accompanies this book.

I think that you'll be impressed by the power of location in storing memories and probably see how you can use imaginary locations as well. However, for memorizing medical terminology effectively, I suggest that you always use locations that you are familiar with.

How can you judge familiarity? It's quite simple. If you can wander through a location in your mind without pausing to think about what room comes next, you can effectively work with this "palace." The notion of moving from room to room works especially well because the order of rooms within a familiar building is difficult to forget.

Outside locations, on the other hand, can be difficult to remember. In such cases, it is better to use landmarks. Landmarks could include the entrance to your house, the driveway, the yards of the house on your street and the merry-go-round and swing set in a local park.

You could also use streets in a neighborhood, assuming that you remember them with ease and without having to search your mind for them. If you live in a town with numbered streets and avenues these can be especially useful because a progression of numbers up or down is concrete. But if you are moving through a park where one tree looks much like the next, you will likely find yourself struggling as you move through your palace.

It cannot be said often enough: the more you use places you already know, the less you have to remember. The less you have to remember, the more you can associate the sounds of the words with their meanings in memorable ways. And the more you can associate, the more you can remember. It's an awkward equation, I know, but it all boils down to the fact that remembering less leads to remembering more.

Imagery

Imagery is ... well, imagery: mental pictures that you build in your mind. For the purposes of memorization, these pictures need to be big and colorful. The larger and the more colorful, the better. You want to exaggerate the size and colors because the larger and more colorful the image, the more memorable it will be. This will in turn strengthen the associations.

Some of the students I've taught tell me that they are not particularly visual in their imaginations and I completely understand this. In fact, when I read a novel, I rarely see images in my mind. Reading is almost always a conceptual experience for me. In fact, it's possible that I have something called *Imagination Deficit Disorder* or IDD.

Whether I suffer this condition or not, I do have a low visual threshold in my mind, so am able to give my non-visual students a few suggestions based on my own experiences.

First, if a student can't think in color, tell them not to force it. Have them try thinking in black and white, taking care to exaggerate both the black and white. Exactly how black is the black and how white is the white? Is there an opportunity to use gray in some memorable way?

Whatever happens, we should never allow a lack of imagination for intense imagery to be a barrier.

In the event that neither color nor black and white patterns prove useful to you, try associating certain prefixes with actors or fictional characters. For instance, let's say you are trying to memorize words that start with "inter" (interact, intercept, interstate). Every word that begins with "inter" can be

automatically associated with, say, Anne Hathaway, who played an intern in *The Devil Wears Prada*. realize that not a great number of words that begin with “inter,” but isolating parts of words is a key principle of effectively using memory palaces to store and retrieve medical terminology until the “training wheels” on the bike of memory, i.e. the mnemonics, can fall away.

Another option for non-visual learners is to use paintings. Choose and study paintings that you are familiar with for your memory palace imagery. The more you are aware of the intricacies of famous paintings, the better. The next time you are in an art gallery or looking through an art book, pay close attention to what you are looking at. Buy books about art history and specific painters and scrounge through them for ideas. Spend time imagining what zany actions these famous figures could be engaged in. The ideas generated in such exercises could become fodder for better associations while memorizing medical terminology as you involve the associations with movement. We’ll talk more about adding action to your images momentarily.

Another idea, perhaps one for advanced memorizers, is to select a number of famous paintings and place these in a memorable order inside of an imaginary art gallery. As you mentally walk from painting to painting in the art gallery of your mind, you can place your associations in front of each painting. For instance, the word “interim” could have Anne Hathaway engaged in Internet marketing (generating the *im* in interim) in front of a painting with an imp.

The drawback to this method is that it requires memorizing the order of several paintings with which to make word associations. Nonetheless, I provide it as an idea for conceptual learners and for those who might respond to this approach.

I must mention a small problem with artwork, however. Paintings and statues tend to be static. They don’t move. That said, if you can imagine the Mona Lisa walking like an Egyptian outside of her frame, or Michelangelo’s David doing the Moonwalk, then you should have no problem.

Finally, you can use toys that you remember. GI Joe, Barbie, My Little Pony, Hello Kitty! ... anything goes. As with paintings, however, the most important factor here is that you can put these figures into action. Without action, the memories most likely will not stick in your mind nearly as well.

So without further adieu, let’s turn our attention to the matter of ...

Action

By now, you will have thought about for yourself different locations you are familiar with, sub-locations or stations within those locations and different ways that you can use exaggerated imagery to boost the stickiness of the words lodged in your various stations.

The next step is to give your images a bit of movement.

More than a bit, actually. Just as you want to exaggerate the size and color of your images, you also want to exaggerate their actions.

It’s not an entirely nice way to think of memorization, but something that will work wonders for you is to make the action violent. Highway accidents serve as an example of how memorable scenes of violence can be – even in their aftermath. If after seeing an accident or accident site you could not shake the memory of your mind, then you know how powerful violent images can be.

This is not to suggest that lives need to be lost when working in your memory palaces. Cartoon violence will work just as well. Wile E. Coyote, for instance, provides a strong example of someone willing to savage himself in some pretty hilarious ways when trying to make the Road Runner his

dinner.

Again, the object is to create something so potently memorable that working hard to recall the image is unnecessary. It will instantly come to mind when you look for it because you've given yourself no other choice. You've made the image impossible to forget.

Now, you may be thinking that using this technique is going to lead to a brain cluttered with bizarre images, especially since you already have enough new information to deal with in terms of memorizing the sounds and meanings of your new words.

You may experience such clutter in the beginning when first learning the techniques. With practice, however, you will learn to be clear and precise.

Moreover, the images used in the associations tend to eventually fall away, leaving the actual memory intact. You'll still wander your palaces and have a hankering of what the images you once used to memorize a word, but these fragments will be secondary.

For example, I initially associated the German word "zerbrechlich" (breakable) with a vase being smashed by Zorro on an escalator in the Sony Centre movie theatre in Berlin. But although I remember the word and what it means perfectly well, I never actually have to visit that place in my mind anymore, nor do I have to imagine Zorro breaking the vase. I can if I want to, but because I spent time making sure the image was strong enough in the beginning and did the compounding exercises I discuss in a future chapter, the image very quickly loses importance as fluency takes over.

In sum, the new word – or in your case, terminology – and its meaning will be the central artifact on display in your mind. If the entire memorization system is indeed like a bicycle, then the images themselves are the training wheels. They are not necessarily meant to stay after you've grown with the system. The images are the tools we use to install the images, and although we will remember what they were, so long as we continue using the word by reading, speaking and writing, we reduce the chances that we will need the tools.

If you do not like the bicycle metaphor, another way to think about this is in terms of dental implants. When dentists create an implant for a patient, they not only have to order a specifically shaped screw to drill into the bone, but they have to order a ratchet designed specifically for turning that custom-made screw. Sure, the dentist keeps the tool in case the implant needs to be retracted, but as a dental practitioner, the goal is to do such a good job that the tool will no longer be necessary. But it will be there if needed.

In order to ensure that you get the fullest possible benefit from using the system, let's move on to the next two principles.

Preparation and Predetermination

Like the full memory palace organization system revealed in an upcoming chapter, Preparation and Predetermination are two memory skills that I have not seen talked about in any other memory books apart from those I have written for memorizing other languages. Yet, both of these steps are essential elements to memorization success when using memory palaces to tackle medical terminology, or for that matter, anything you might like to remember.

Preparation, to begin, involves relaxing the mind. I will share several thoughts about how best to relax in the concluding chapter, but for now, please realize that when the mind is tense, busy or exhausted, it will resist attempts at memorization.

This fact does not mean that you won't be able to remember anything. It only means that their minds will not be in the most receptive state possible. But when your mind is open and relaxed, you'll be amazed by how these techniques will double, triple and even quadruple their results. Even a three-minute meditation before memorizing can work miracles, but see the conclusion for a larger list of possibilities.

Predetermination, on the other hand, involves charting out the memory locations and stations *before* attempting to place the words to be memorized in the memory palace system. I must stress that before you populate your memory palaces with medical terminology, you should consider building the entire system first – or at least a substantial portion of it. I've tried making up my palaces as I went along, and I can tell you that this leads to little more than frustration and impoverished results. So please spend the necessary time to predetermine the locations and label the individual stations within them.

Before continuing, I want to stress that perfection is not the goal with either of these two principles. Preparation and predetermination work best when not forced, so it's important not to harm our forward movement by being too particular about every little detail. We just want to get the basic layout in place so that we can work relatively quickly with the words we want to memorize.

Preparing Your First Location

It helps a great deal to draw maps of the locations you will be using and have some system for labeling the individual stations. Alternatively, students can list them in a Word document or catalog them in an Excel file. You can also easily send a blank email to learnandmemorize@zoho.com and I will send you free Magnetic Memory Worksheets.

Take advantage of this offer right now because these worksheets will help you instantly organize your locations and the stations within them. All you have to do is fill in the blanks. You'll also get a free subscription to the Magnetic Memory mailing list, which gives you access to helpful tips about amplifying your memory, inspirational notes, links to valuable videos and other memorization-related materials that will keep your mind magnetic for years to come.

Some students I've had like to sketch the different rooms or use computer architectural programs to create digital layouts. Although I personally don't go that far, I tend to do all three of the former in order to maximize the strength of the associations I'll be making.

Let's face it: If we're going to spend time learning terminology, we want it to remain in our minds. When it comes to learning. It's always worth taking the time to fully realize my palaces so that they will be accessible when I need them for near-instantaneous recall when reading and conversing.

The first Memory Palace I ever created was my apartment in Schöneberg-Berlin. It had 8 stations, though I now recommend and always make sure that any new memory palace I've started has at least 10.

This particular apartment was on the Feurigstraße, which means "fiery street." The name came from the fact that a fire station was located just a few blocks north of me. This was rarely a bother because the firemen had the lovely habit of only turning the sirens on after they had left the street.

I don't mention this to be cute or self-indulgent. All of these details come in very handy when it comes to building Memory Palaces.

First, because the apartment was on Feurigstraße, I used that apartment and every station in that palace to remember words that begin with the letter 'F.' I could use this apartment for any other letter

but this is the association that came to me naturally, and I think it is best to allow for such natural associations.

Because I don't have to spend any time remembering that all 'F' words are connected with the Feurigstraße palace, I don't have to make any odd leaps in my mind searching for words that start with "F." Had I placed 'S' words there, then it would take my mind a step to search for which palace has 'S' in it.

Don't worry. I'm going to go into greater detail about all of this later. But for now, the basic principle is that every location is a Memory Palace and as much as possible, that location should start with the same letter of the words that you will store there.

The Feurigstraße apartment had a nice layout:

1. My Office
2. Laundry Room
3. Bathroom
4. Bedroom
5. Wife's office
6. Living Room
7. Hallway
8. Kitchen

Later, I extended this palace outside of the apartment:

9. Outside of the door
10. Stairwell
11. Front door
12. Parking garage
13. Sidewalk
14. Used book store
15. Playground
16. Fire station
17. Church
18. Sushi restaurant

... and so forth

There are two important points that I need to mention here. In creating these "journeys" through the stations of a Memory Palace, you need to structure your progress in such a way that you:

- a) Never cross your own path

b) Never trap yourself

If, when you are rehearsing or searching for your words, you have to cross your own path, you are liable to confuse yourself. You will find yourself pausing to remember how exactly the journey went and such interruptions will impede your recall. Therefore, it is best to create a journey that follows a straight line. Even with great experience in the art of memorization, this principle will remain key.

Second, it is important that you don't trap yourself. The reason I was able to add more stations to my 'F' Memory Palace so easily after I finished with my initial 8 is because I started at a terminal point in the apartment: my office. Had I started in the kitchen and moved toward my office, I would have trapped myself – unless I wanted to jump off the small balcony and down onto the street, that is.

Making an imaginative leap from the balcony to the street is entirely possible, but it is unnatural, and nothing I would do in reality. Thus, such an action causes the mind unnecessary work. The point of this memorization strategy is to *always* reduce the amount of work your mind has to do in order to get to the associations that will prompt the sound and meaning of the words you want to recall.

Therefore, although you will be exaggerating shapes, colors and actions in your memory work, I feel that it is best to keep the path you take through the palaces as natural and free from exaggeration as possible. Save anything that requires your memory for the things you want to remember and eliminate all else.

Try this method out for yourself. Describe the layout of the place you live in now and make a list of at least 10 individual stations. You can make a handmade list or use an Excel file. There is good reason to get started with Excel files right away for the purposes of testing the strength of your memorizations in the future.

Here are some action steps that will help you master the techniques taught in this chapter and give you ideas for how to help your friends and families learn the techniques too. Obviously, you should not be teaching something that you yourself haven't had success with.

1. Select at least 10 different locations that you remember well. If you are feeling motivated, you can list all 26 giving you locations enough for the entire alphabet. These locations could be apartments or houses you've lived in, schools, libraries, workplaces or art galleries. All that matters is that you know them well and can walk around them in your mind. I find that movie theatres with multiple screening rooms work really well for me, and as a film professor, I have over a dozen theatres that I am intimately familiar with.
2. Select and list at least 10 "stations" within each of the locations you've listed. These different stations will become the places you will leave each of the words you want to memorize within each palace. These stations can be entire rooms, which I recommend when you are just getting started, or they can be more specific. You could use an armchair and the table beside it as two different stations, for instance. Even though you will not need to remember any of these individual stations (that's the whole point), you should still write them down for the purpose of testing the strength and rigor of your memorizations.
3. Take a walk through each palace and the stations that you have identified. While wandering, make each and every station vivid in your mind. You can imagine cleaning everything out if you like, removing all the dust and dirt that can get in the way of your memorization process.
4. Draw maps. Creating visual representations of each location and the stations within them

can be very powerful and save you a lot of testing time later. You definitely don't want to be vague about what comes next in your Memory Palaces. Again, using an Excel file is also a great idea if you are not a visual person, though doing both is highly recommended.

5. Practice remembering trivial things where there is no pressure if you make mistakes. The top ten highest mountains or largest rivers make for great practice. Shopping lists also make for good practice. Remember to make everything large and colorful.

6. Include action. Let's say you're trying to remember that you need carrots on your shopping list. Imagine that you are jumping on the carrot and hurting it badly. You can use whatever image comes to your mind, so long as it is over-the-top, hilarious, zany and memorable. If you relax, you'll find that your mind will come up with material very naturally.

7. On that point, always practice in a state of relaxation. I have included specific notes on the best relaxation techniques for memorization in the final chapter. These relaxation practices are also good for any form of creativity.

8. Make sure that you are having fun. If not, take a break and come back to it. When you start out practicing with memory items that have no consequence, you enable yourself to play freely with the concept. If, for example, you start with medical terminology right away, you risk associating frustration with the language you've always dreamed of learning. Make sure that you can memorize at least ten items you know nothing about before attempting any words. For example, you could memorize the ten tallest mountains in order of size. Or you could work on one of the bonus exercises included at the end of this book.

9. Give yourself an exam. As I've stressed, you need to write everything down for the purposes of testing. This is not rote learning. It's a method of giving you the ability to double check. Also, when testing, don't look at the original list you created. Write out everything fresh and then compare the list you wrote out from memory with the original.

10. Teach. The best way to truly learn a technique is to teach it to someone else. You should discuss your newfound knowledge about memorization as often as possible because this will deepen your familiarity with the techniques and prove to yourself and others that these things really do work. It's not showing off to do so. You'll also be making the world a better place because you'll be enabling others to use their minds more effectively. Make working on your own memory and helping others improve theirs. This should be a habit for life.

Chapter Two: Applying the Main Principles to Learning and Memorizing Medical terminology

This chapter explains the complete system for creating and using a 26-letter Memory Palace system. By this time, you've already created at least 10 locations for yourself based on places you remember with ease, and ideally, fondness. You've made sure that all of the material is charted them out either on paper or using an Excel file for testing purposes and that these list at least 10 stations within the 10 locations.

Here's how I work whenever setting myself up to memorize the essential vocabulary I will need to operate in a new language. Jamie used this precise procedure to set up his palaces for medical terminology and, on occasion, important case studies.

First, I create a folder and then create multiple Excel files. Excel works the best because it eliminates the need to build a table. However, you can just as easily build a table using Microsoft Word, Pages or whatever Word Processing software you happen to be using.

In this case, the files or individual sheets of paper for each palace need to create correspond to the 26 letters of the alphabet. In the following example, Jamie will show you what his selected locations for medical terminology will be. Naturally, I used a completely different set of locations when I was working on German using the alphabetization Memory Palace technique. You'll want to focus on creating Memory Palaces on locations you intuitively feel will be appropriate to medical terminology. Campuses work great for this purpose, or perhaps you can remember the layout of a doctor's office you used to visit during your childhood, as well as the doctor's office you visit now for checkups.

Here are Jamie's 26 Memory Palaces:

A = Atkinson Medical Center

B = Brandon's House

C = Cassandra's House

D = Dentist's Office

E = Erin's House

F = Fabian's House

G = Greek Restaurant

H = Hotel Vancouver

I = Innis Building

J = Jamie's House

K = Karl's House

L = Lilly's House

M = Mom's House

N = Nicola's House

O = Owen's House

P = Pratt Medical Center

Q = Quinn's House

R = Rain's House

S = Smoke House & Grill

T = Tom's House

U = University Library

V = Vicki's House

W = William's House

X = Xavier's Apartment

Y = Yan's House

Z = High School Parking Zone

Again, it is important that you have at least 10 stations assigned to each of the Memory Palaces based on locations that you are very familiar with. Remember, design your passage from station to station in such a way that you do not cross your own path and so that you do not trap yourself. Always leave yourself with the ability to add another 10 stations in each location. For some letters, you may need a few dozen stations for some of the letters in order to achieve boosts of medical fluency.

As you are trying to come up with each location to link with each letter, let yourself relax. Your mind has the perfect associations for you, so long as you don't force it. If you can't think of something that is totally fitting, such as Parking Zone for Z, just let your mind do its work and go with whatever feels right. You do not want odd or awkward associations that cause you to stumble in your thinking. You want the associations to be natural so that you can move fluidly through your mind when searching for the words you have remembered.

Obviously, the need for relaxation will be the same for anyone. When it comes to recalling information, you will often need to do this in real time and without hesitation. It is therefore important not to hinder your progress by using forced associations that you will forget or struggle to work your way back to. That will take the fun out of everything. We relax while memorizing to train ourselves to relax during recall. It's pure Pavlov, but it works.

Now, to demonstrate how you can build out each location, let me show you how Jamie used two of these letters for some medical terms in Latin: A and C.

For A, which for Jamie is the Atkinson medical center, his first ten stations for medical terminology are:

1. Back examination room
2. Examination room 3
3. Examination room 2
4. Examination room 1
5. Secretary's station

6. Waiting room

7. Kids play area
8. Magazine rack
9. Front Entrance
10. Parking lot

What Jamie has done here is to select a terminal location within the medical center and then work his way out to the parking lot. This means that he does not have to cross his path and will not get trapped. Once he's used these ten stations, he can easily add another ten, assuming that his memory of the show walk to the subway system is strong. He could also skip to the subway system if need be, and from there he would have a strong memory of all kinds of stops that can be used for storing words.

Before continuing, let me note that for the purposes of this exercise, Jamie limits himself to terms starting with "at." This is to bring greater clarity to the Memory Palace and allows for a linear line in the journey in terms of alphabetization. If you remember that the next word in line proceeds alphabetically, then that is one less thing you need to remember when moving through your Memory Palace from term to term. As always, you'll need to experiment with this approach and make sure that you adjust the technique to suit your own needs.

Note: In this section, we're going focus on terms from Greek and Latin. However, in the example Memory Palace chapters to come, we'll be giving you a behind the scenes look into how Jamie has memorized medical terms that use everyday English.

As it happens, Jamie is a history buff and enjoys stories about Attila the Hun.

"Attila," therefore, will do nicely as an associative figure for each and every "at" term.

The following point is worth repeating: The reason for working with only "at" words is to maximize the memorization while limiting the potential for confusion. Were Jamie to clump random words together, he would need to remember which word came next blindly, or at least with some form of arbitrary "connective tissue."

However, since Jamie knows that there are a number of "at" terms and he places them in alphabetical order, he automatically strengthens the associations. Taking this step also assists recall for reasons that will become clear.

For now, Jamie has greatly simplified his memorization process by choosing to simply move from one "at" term to the next in alphabetical order. He does not have to struggle with remembering what will come next.

"Ataxia" is the first "at" word in Jamie's dictionary.

To remember that "ataxia" refers to "a lack of muscular coordination," Jamie places Attila the Hun in the back examination room of the Atkinson Medical Center. He will have a huge ax in his hands and be swinging it at the muscles in the leg of his tax accountant who has just come limping into the room.

What Jamie is doing in this example is "compounding" the image in order to drive home the sound and the meaning. Instead of relying on just one association, i.e. the axe, he creates something like a vignette involving his tax accountant and an attack. This gives him three ways, instead of just one to

arrive at “ataxia.” Having the tax lawyer limp as he unintentionally walks into the path of Attila’s swinging sword brings home the meaning of the word. Being very relaxed while working through this procedure, Jamie works with whatever comes to his mind. The strength of the process is that our minds always bring the perfect images to us as long as we are relaxed.

As you practice this technique, it is important not to resist or worry that you are including too much imagery in your associations. A wealth of material is better than breadcrumbs when it comes to finding our way back to the terminology we seek. You can always come back to sculpt and refine the overflow of imagery later. Unnecessary elements will tend to fall away long before then anyway.

Moving on, Jamie comes to “atelectasis.” Literally, the term means “imperfect expansion,” but is most commonly applied to lung collapses or other kinds of lung closures.

Jamie will place this term in Examination Room #3.

Once again, Attila appears in the association to remind Jamie that the word he’ll be memorizing at this station begins with “at.”

The first thing that comes to mind is Attila lecturing about aces. To make the association visual, Jamie has Attila standing behind a professor’s podium in the examination room and tossing aces from a deck of cards at an x-ray showing atelectasia of a lung. The cards pierce the lung in the x-ray, and this causes the collapse.

Jamie uses relaxation to help the images arise and this helps him move quickly.

Remember: when doing memory work, you are looking for speed of implementation. Too much hesitation will seduce you into rote learning. Trust in the power of your imagination to recall the associations and puzzle things together. Chances are you won’t have to do much because your mind will put the pieces together very quickly if you step out of the way and let it.

You’ll probably have noted that Jamie’s images are a bit extreme, and again, we do not wish to offend the reader by including them. However, these techniques work best when the image is not only exaggerated, but also intensely impossible to forget. It’s just human nature to effectively recall matters of sex, violence and disgust for reasons we don’t completely understand.

From a Darwinian perspective, this feature of our minds is probably survival based. The reason we sometimes can’t shake terrible images or bad things that have happened to us is that our biology wants us to keep aware of our surroundings, if not flee from them and then never forget to go back.

With this point in mind, it may be useful for you to think about memorization techniques in terms of the classic “fight or flight” response. If you can make yourself disturbed or want to run away from your associations, the chances that you’ll memorize the target material rises significantly.

That said, some reviewers of books in the *Magnetic Memory* series have argued that such extremes aren’t necessary for them, as have people kind enough to email me with their responses to my style of memorization. I always respond, “great. If softer imagery works for you, go for it.” But most memorizers benefit a great deal from not taking themselves too seriously and just going with whatever crazy images and ideas their minds bring them. And the ones that work best just happen to be on the seedy side of the imagination.

Let’s move on to some examples from Jamie’s Memory Palace for the letter “C.” This is Cassandra’s house. Here Jamie will pick a terminal point in the house and move outward, taking care never to cross his path and never get trapped.

These are the locations:

1. Upstairs master bedroom (terminal location)
2. Cassandra's bedroom
3. Cassandra's brother's bedroom
4. Staircase
5. Bathroom
6. Kitchen
7. Dining Room
8. Living Room
9. Front Hallway
10. Front Living Room

Again, it's important to group words together, so for this example, Jamie will focus on "co" words. The first thing that comes to mind as a bridge association for "co" is a codfish. Jamie immediately felt that it was a bit unwieldy because of the potential for interference from the 'd,' but decided to move forward anyway, since many strange images can be created by mixing a codfish with something else. Plus, he already knows that "cod" is there strictly for the purposes of jogging his memory that the words begin with "co," so any interference from that pesky "d" at the end of "cod" should be minor.

From the Greek *kokkyx*, "coccyx" literally means "cuckoo," and the term is thought to have been borrowed because of how the tailbone resembles a cuckoo bird's beak.

This fact makes it really simple for Jamie. Now all he needs to do is place a cod with an enormous cuckoo bird's beak in the master bedroom and have it attacking Cassandra's tailbone. He sees it large, bright and colorful and can even add a "cuckoo" sound to compound the etymological trivia. You never know when such info might ease a patient's suffering, or at least temporarily distract them from a bruised tailbone.

Let's move on to a more complicated example by moving on to Cassandra's own bedroom.

"Corpus luteum" refers to the scarring of the ovary. This is a difficult one because the ovary is not something one can easily visualize. But let's see how Jamie does.

To remember this term, Jamie first sees the codfish trying to enter the corpse of a woman playing a lute. As he is working on this, he realizes that it could be a wombat playing the lute on her belly to bring the "womb" to mind. For the scarring element, Jamie has corpse become an old tribeswoman with ritualistic scars on her body.

This is definitely an association that Jamie will need to come back to, but the important point is that he *has* something to come back to and materials that will help him reconstruct the term. Had he tried placing this material in the void of his mind, he may or may not have found it. The chances would be stacked against him, but by using specifically located and "stationed" associations, the mind has a place to go.

There are many more examples of how you can learn and memorize medical terminology coming up

later on in this book. We have given these examples for now to get your started on thinking about the possibilities that await you on your journey towards greater medical fluency.

As ever, always look for ways to adapt these methods to your own style and comfort. If any of the images or short vignettes Jamie and I suggest work for you, by all means use them. However, in my experience, each of us needs to take the principles and create our own images.

The more the material for associations come from within you, the more memorable the target terms will be for you. Just make sure to use exaggeration and action in combination with location. Focus on vibrant and zany associations within carefully selected Memory Palaces that do not require any effort from you in order to make a journey from a terminal location, one that never requires you to cross your own path or become trapped. This is the key to experiencing success with this method.

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