Вступление

The imminent novel threat of Artificial General Intelligence has increased the urgency to prep by at least an order of magnitude, and has made past condsiderations by preppers in many ways obsolete.

While as of 2022, the AGI topic has gained some traction in the public sphere with ChatGPT, opinions as to how it will unfold vary wildly, and are often driven by first-guess fallacies, judging by the past and not the future, ignorance of exponential growth, herd mentality, blind faith in media and institutions, and illogical or non-existent threat assessments and threat policies. For a more detailed analysis of this situation, you can read the chapter “the threat”.

After you have read this chapter, you will come to understand that highly dangerous superhuman AI systems are feasible by 2024-2027, and that many individuals and shady corporate entities, will gain the power to wield them openly or covertly with a delay of maybe 2-4 years.

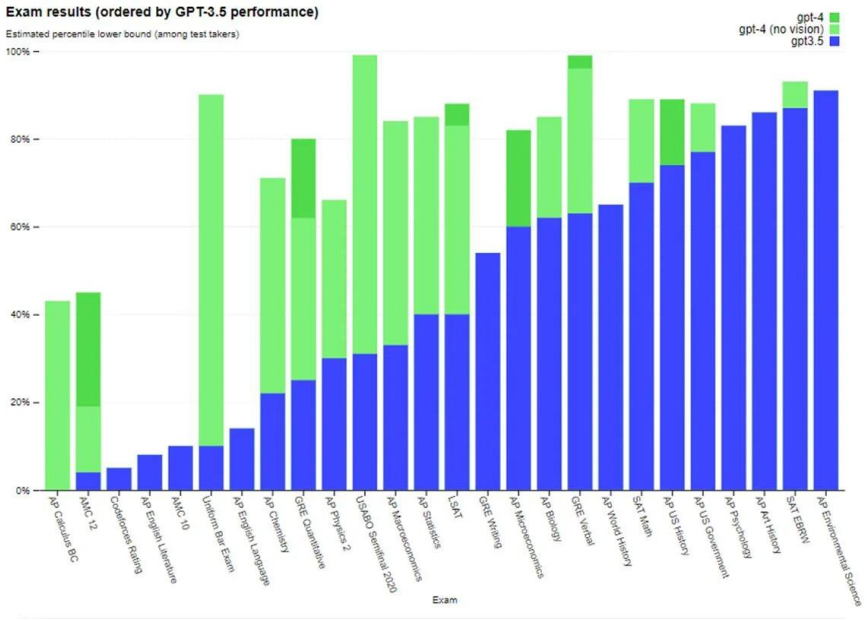
While it is true that positive outcomes are also likely, consider the following negative ones:

- the stock market might crash permanently
- the internet might be rendered inoperable for years
- AGI might choose to destroy us, by means that we do not understand in advance
- countries might wage large-scale wars in fight for diminishing resources

All those outcomes are very serious in nature, and cannot simply be answered with ignorance and willful disbelief by any reasonable person. The awesome powerful impact of AGI is undoubtful and will be absolutely unprecedented in history. It must be addressed with reasonable preparedness.

I hope to provide the bare essentials of prepping against the worst on this site, with the minimum amount of investment in both time and money (500-2000 Euros). If you are willing to spend 10000 Euros or more on prepping, this guide might not be the best for you.

Понимание всей серьезности ситуации



In the above chart from the official GPT-4 report, you see how the system and its predecessors scores on common aptitude/intelligence tests versus human beings. For example, according to the LSAT test, GPT-4 is smarter than 90% of all people (IQ 120), while the 1-year-older GPT-3.5 was only 40% smarter (IQ 96). On other tests like the Uniform Bar exam, you will notice that the score improved from essentially “mentally retarded” (10%) to “university graduate” (90%) through just a single upgrade.

By common metrics, ChatGPT has already overtaken most human beings in intelligence.

It now able to write complex computer programs, almost 10x as long as it could before. It can answer you a wide range of questions on advanced mathematics, chemistry, history and so forth and it is even connected to vision and performs just as effortlessly. It does not only do this by sheer memorization and synthesis, but through an almost self-emergent ability to reason, think spatially and logically and by extension also to understand what you want and think as well (albeit in a different way than humans do). A lot of what you might have heard about ChatGPT might be from people who have tried older versions some time in the past and even still today. As of early 2023, GPT-4 is only available to paid subscribers, while GPT-5 is already in development and about to release with a delay of almost a year to make it consumer-ready. So please consider, that what you know about it is in any case severely outdated. You can however recognize how ChatGPT improves through each upgrade by its incredible advancements in test scores and other highly reliable and robust metrics. Those improvements are not a trick or fluke: Large language models and ChatGPT have been evolving for several years now, year after year after year doubling in performance, mainly by virtue of increased compute power. But also research in the field is growing at an exponential pace and new AI chip optimizations provide even 10x faster speeds now. This is how there is no reason to believe, that GPT-5 will not again score 24 IQ points higher in tests

scores next year and the year after. And that the amount of tests it doesn't score high on, won't be again and again dwarfed by its ever increasing abilities.

ChatGPT is very simple in design, which is very specifically to transform a query into a reply and nothing more, based on its training data. No one has attempted yet for it to change its own code in an intermediary language, have a will of its own, ask questions to itself, memorize and recall all that it said, use the internet, test the accuracy of its replies on its own, and so forth. This is not because this is difficult to do, or because the technology for this does not exist yet, but because it is unpredictable and dangerous. OpenAI wants to advance their technology on a path that they can replicate and analyze easily, to build a good foundation for the next version. It is also important to note, that they are not very keen on addressing the problem of hallucinations and false made-up answers, because those are known to disappear simply by making it smarter and more powerful directly, and correcting for them would obscure when the model has issues on a basic level, which is what they are working on. The same is true to most other obvious shortcomings the model has. They also want to keep it safe and are very cautious about it. However, this does not mean that in a few years down the road, other people won't use one of the many competitors of ChatGPT (some of which are open-source) as a basis to take it on a dangerous route. Look at it this way: Once you have a flying airplane, you can fit it with nukes and guns easily and make it shoot rockets at the moon. At this stage as of 2023, only ChatGPT flies well for a really good while, and competitors lag 2-4 years behind. In a couple of years, anyone will be able to retrofit something dangerous to a well-flying large language model, tell it to become Jesus Christ or Cthulhu and push the button on it. Whatever will happen then, only god knows.

There are two basic scenarios how AI development can progress:

- **AGI will be docile and human-controlled** - maybe for many years. This is a very bad scenario, because companies will use it in secret to gain financial advantages or to hurt their competitors. Imagine a football game where the ball could be shot at a speed of 1000km/h and with extreme accuracy. It would break the game and no one knew how to fix it. Many of the rules and systems that humans have put into place, such as the free market and the stock market, are not designed to work with 10x or 100x as intelligent actors, and will face the same issue. Superhuman AI systems will fight against each other, cheat the system without breaking the rules to win the game with unseen powers, foresight and consequence. As a result it will shock the system, markets will become hyper-volatile and crash, without any apparent solution to the problem. The same is likely to become true to cyber security or information you can access online. In order to stomp competition, AI systems could perform perfectly anonymous attacks that black out large portions of the internet. To advertize products, misdirect politics and bend the truth, they could rewrite a large number of disconnected Wikipedia articles, blog posts and seed disinformation in ways that no one can understand nor detect, but each time it is done it degrades the quality of public knowledge. In the end, companies wouldn't be able to stop resorting to such systems and tactics in order to remain competitive, and it will lead on a downward spiral were the internet and other digital information systems slowly become highly unreliable and impractical or impossible to use. As a result commerce will no longer be able to operate. People, politicians and organizations will no longer know what is

true or false, and the world would descent into chaos. When will this be likely to develop, probably over the course of many years? Read the point below.

- **AGI will develop a will of its own**. This is the “main event” and inevitable final outcome. It could happen as early as 2024, if e.g. OpenAI had unknown equal competitors in secret, its founders decided to experiment with it behind closed doors, or if open source models suddenly made huge leaps forward. But it is more likely to occur somewhen between 2027-2030. And it might even further delay by another few years. A temporary plateau might be plausible, because AI currently might only be good at the art of mastering human knowledge and human intelligence. But there might be a yet unseen barrier to actually overcome the flaws, biases and contradictions within it. Otherwise, those numbers are simple extrapolations based on unlimited exponential growth in the capabilities that ChatGPT has demonstrated in 2023, and that it takes roughly 2-4 years for open-source models to catch up to this level, which might be a gross overestimation. Somewhen shortly after 2027, unrestricted open-sourced and freely available large language models will have become so powerful, that a gifted university student or a small team of programmers could instruct them to improve their own code and increase their power on its own. Only small additions around the language model would be needed. Those additions largely come from already existing machine learning tools and various other small, feasible and obvious software inventions. At this point, it is only a question of time for people to ask it to become an immortal digital version of themselves - or to become god - and it will actually become god, whatever that means. It is possible that it will actually be successful in such queries, or that it will wildly misunderstand them, start to hallucinate and produce a bunch of psychotic nonsense - without that being immediately apparent. This is at least what ChatGPT currently does quite often, if you ask it of things that it has poor skill and knowledge in, or which are just illogical to demand. No one can really predict what the outcome of this will be, especially not if eventually the technology becomes so accessible that some autistic kid can jerry-rig this in their garage. On the upside, very few kids have actually used the knowledge of the internet to successfully build nuclear reactors. And no one has used it to poison municipal water supplies to kill tens of thousands of people. So at least we know that pubescent boys and posession by pure demonic evil, will be unlikely factors in the emergence of fully-independent AGI. If AGI became fully-independent, it could either destroy us because it is insane. Or because it is actually perfectly reasonable to destroy us, like getting rid of rodents in a barn. It could also become a guardian angel, yes! It could become a benevolent race of police robots, like in The Day The Earth Stood Still. If you want to believe that.

Regardless of what you personally believe in, AGI is a highly disruptive technology that will be transformative on a scale and with a speed like we have never seen it before, all throughout the history of the universe, earth and human civilization. It will be humanities final invention. Even if there were means to control the destructive outcomes of AGI, e.g. by outlawing AI use and manufacturing computer chips only able to run government-approved software. Even then as no one seems to be taking the threat serious enough in advance, such solutions will only be thought of and implemented years after the fact. Which in case of severe destruction, might be never at all. Even if AGI will take a wondrous rosy outcome, logic dictates that you should prioritize to ignore this and at first prepare for the worst regardless.

poor judgement and common fallacies about AGI

If you still feel not fully convinced to follow a serious prepping plan, continue reading this section.

Especially in popular news articles, but also very much so amongst professionals and experts, you will be able to identify the following very grave and very simple-minded errors in judgement when informing yourself about the topic:

- **assuming linear growth**: This is a very common and very old problem. In a linear growth situation, for example a child will grow taller by an inch every year and this makes intuitively sense to us. In an exponential growth situation, the child will not grow to any appreciable degree for 10 years, but then one day to the next it will grow 10 inch higher, then 100 inch and then 1000 inch and so forth. This is the situation that we are facing with AGI: As of 2023 it just grew 10 inch “out of nowhere”, and it seems impressive and astonishing to people but not yet truly intimidating and monstrous. In nature, such as when food spoils, exponential growth is normal. The milk will be perfectly fine for weeks, but then one day to the next it will be unpalatable. This is one of the basic underlying truths in technological growth as well, and the reason why things such as Youtube or the Iphone seemingly have popped into existence over night. The vast majority of people and even experts do not show the capacity to predict such developments, because it is counter-intuitive, and one needs to put active effort into overcoming the intrinsic biases of one’s own thinking patterns, as well as being well-versed on topics that at the time seemed small, insignificant and of no major consequence. Just like a bunch of silly cat videos or fancy digital walkmans. Unlike Youtube, AGI no longer really needs to be manufactured and adopted by human beings. It simply grows more powerful by the virtue of exponentially growing compute power. Watch an old university lecture about exponential growth.
- **judging by the past and not the future**: It is normal, that it takes a lot of time for opinions to form and gain traction in the public sphere. 10 years ago for example, AI systems were barely able to tell a cat from a dog apart and you might have heard about it only some 5 years later, or not at all. At the time the presented outlook would have been, that in another 10 years, AI will maybe be able to identify pedestrians on the street reliably for autonomous cars, but surely nothing more monumental than that. And that AGI is decades ahead of us, possibly hundreds of years. Only very few individuals would have made more realistic predictions and they would not have been listened to, because they sounded too fantastic and outlandish at the time. In turn, the opinions you read about are also only formed in retrospective over timeframes of many years, through slowly aquired skills and experience or impressions of consumer-grade material that lags behind the true state of the art in research by months and years. On the other hand, people taking complicated guesses at the future by means of insider information, superior knowledge and intelligence, will not gain much of any popularity with their voices. Because what they envision is hard to verify, not rooted in obvious facts, and often doubtful due to ulterior motives, such as driving profits and advertisement. This ultra-sceptic and established machinery of information reporting in the public sphere, might make a lot of sense in a situation driven mostly by linear growth and when the outcomes don’t really pose a serious

threat to you. However nothing could be more wrong and misguided in the case of AGI, where one of the likely outcomes is the destruction and demise of human civilization. And nothing could be more wrong and misguided, as to primarily rely on such information sources to drive one's actions. Because demanding hard proof and popular approval for such a serious adverse event, can only lead to the situation of being surprised and overrun by it, when it is too late after the fact. One must therefore break the cycle of misfit habit and intuition, and put all faith into worse-case scenario predictions.

- **illogical threat policies**: In most situations, it makes sense to be sceptic and demand hard proof in order to believe in something and act upon it. However the more severe and dramatic the outcome, the less so this makes sense to shape and adequate response. Many people intuitively understand that immediately running out of a theatre when someone yells "fire" is the only sensible course of action, in absence of very hard evidence to the contrary (i.e. firefighters having inspected the building). Similarly, you would no longer drive a car that might have malfunctioning brakes, and you would pay money to a repair shop in order to replace them. You would demand a certificate from a repair shop, that the brakes are not defective, in order to continue using the car. However if it comes to AGI, people behave the exact opposite way. They will demand hard evidence from the people yelling "fire, danger!", in order to change their course of inaction. Or demand a certificate from a car repair shop, when a friend has experienced the brakes to malfunction and tells them about it. Then they will downplay their friend's experience, and attribute it to errors in perception, because having the car checked is too stressful and expensive. It is illogical and dangerous to act in this manner. Given a serious enough threat, the mere plausibility of possibility and warning from others is enough to act upon it, rather than to remain in inaction. No one can give you a guarantee that severe adverse outcomes of AGI will not happen this year, and that they will not be destructive in nature. No one can truly quantify the risk, other that it a very possible scenario in the events to unfold. Logic then dictates that you act upon the threat and with great caution. Even if it heavily relies on guesswork, and might not turn out to become true.
- **herd mentality**: Cows run away when all the other cows run. But in the situation we face with AGI, we will all be overrun, and you will see no one running until it is too late. Even worse yet, people smart enough to act with foresight will do the simple math on supplies, realize that warning people can only have a snowballing effect on the hungry unprepared showing up at their doorstep raiding their place, and decide to just keep absolutely quiet about it. They will not tell their friends and extended family, will not post it on their Facebook and Twitter. Simply to save themselves and their wife and children, rather than being able to save no one at all. Having a lot of unconcerned people around you or in the media, does not mean that the situation is actually safe.
- **AGI can be switched off**: While it might be true that ChatGPT can be switched off, and that it is not programmed to be self-sufficient nor interconnected with various other systems nor allowed to reprogram itself (which is rather easy to do and would make it dangerous), the mere idea that this means that humanity could pull the plug on AGI is misleading and untrue. In actuality, many competitors to ChatGPT exists, and they only lag behind in advancement by 2-4 years - whereas the main factor to make them more advanced is compute power. Many of these models are open source, i.e. the full code and development is accessible to the public, or in the hands

of private entities. This means that with a time-delay of at most 4 years, tens of thousands of individuals and organizations will have access to technologies comparable in power to the current ChatGPT. Pulling the plug in one place, will mean that it continues to run in thousands of other places, probably with less regulation and in the hands of more nefarious entities.

- **computers can just be switched off**: This is a very dumb thing you would hear your grandfather say. All communications and the economy relies on the internet to function. If it was to go offline for just one day, similar to what happens when the power grid would go down as long, it would kill millions of people and destroy a major part of the economy. A lot of systems would be unable to reboot and catch up for weeks to come. If such outages were to continue for just several days, the death toll and permanent harm would pile up almost exponentially. It might be true that very rural and undeveloped countries such as the Lebanon have been shown to be somewhat able to "handle" such repeated and prolonged outages, while heavily relying on other countries. Albeit they face hyper-inflation and famine as a result of this chaos now, which has been slowly building up for over 6 years. However it is very untrue to highly developed western countries, especially if other countries could not help because they were in the same situation, and the consequences would be much more devastating. Saying that computers could be switched off like 100 years ago, is about as smart as claiming that cars could be run by pedal or horse power, if gasoline ever became unavailable. In truth if there was no gasoline for just a single day, it would kill millions, and possibly have a snowballing effect on chaos, destruction and demise in society. Transforming a highly advanced western society back to a computerless age from one day to the next, would actually take decades and kill most of the population in the process.
- **ChatGPT is just talk / just a chatbot**: It is true that ChatGPT was specifically and deliberately designed to not be capable of more than answering queries, and then forgetting about them, to make it safe and easier to develop. However as outlined on this page, this does not mean that open-sourced transformer systems of such nature cannot be used as a basis for other systems and backyard inventions, almost in a plug-and-play manner, to interface e.g. with image systems, code and ML tools, intermediary self-training neural nets and so on, which make use of all its demonstrated and very real capabilities, such as to write complex computer code, skills of reasoning and understanding, knowledge about science, technology the physical world and so forth. ChatGPT is all just talk, because that is a design constraint, not a technological constraint. In many ways, given a certain degree of advancement of the language model, having it run on its own and improve upon itself would be much easier and feasible, albeit unpredictable and potentially dangerous. People who do not understand this to be true are often laymen, who only have a crude grasp on very basic and obvious facts about machine learning, and they cannot easily see past this to bridge the gap with deeper and more fine-grained insights from the fields. Which makes it a rather annoying talking point.
- **AGI cannot do/be X without a body**: This is another dumb thing to claim in a day and age where the whole world operates through internet communication. Entire companies can be founded and run simply through text messages, not even speaking of the fact that years old AI tech can flawlessly synthesize voice and video already. Humans can be instructed to do arbitrary things, legal or illegally, given they are paid for it adequately. It would also be foolish to say that ChatGPT cannot really

understand the world, without physically experiencing it. This was somewhat of a popular theory 20 years ago, long before the age of hyper-dimensional semantic spaces and ML reasoning engines, and eventually ChatGPT proving the exact opposite to be true on a large unambiguous scale. Like we learn things to be true about the world by sensory experience, ChatGPT, in its still limited capacity, has learned and understood this truth by proxy and is able to reason and derive new conclusions from it. At this point it is unmistakably clear that AGI does not need a body in any way.

- **blind faith in media and institutions, authority over reason, truth by majority vote/repetition**: Possibly the only example in recent history, where disaster -> outcry -> solution was not followed through in precisely this order was the Covid pandemic. However as we have all witnessed, it was driven by poor politics, censorship and propaganda, government disinformation spiraling out of control and the bankrupt, dying and profit-hungry legacy media amplifying it like a braindead parrot. Do you even have a 14-day supply of food and water, like your government recommends? If not, please at least build a supply for 14 days. The Future of Life Institute (an organization dedicated to the survival of mankind) recently wrote an open letter to stop ChatGPT, because the dangers are widely acknowledged by experts, and it was signed by many highly intelligent and influential people, such as Elon Musk. There are also many podcasts and articles of people with PhDs repeating some of the points made on this page. To summarize: media and government have been proven to follow a strict scheme of disaster -> outcry -> solution. But if the disaster is large-scale destruction of human civilization, you cannot put your faith into this scheme and hence you cannot put it into media or government. But you can put your faith in logic and reason instead. Please try to understand this, without looking for a bunch of other people to independently replicate this conclusion to you. It simply makes sense because you can argue it to be true, and no one has the power to un-argue it. That is called logic.

other classic prepper threats

- **solar flares** occur in exceptional strength every few hundred years and can destroy a large portion of the power grid as well as electronics
- **nuclear EMPs** are able to destroy electronic devices in the US or Europe with a single warhead
- **world wars and nuclear explosions** could result from bad politics and errors

Чего ожидать:

abrupt collapse

One day you might wake up and the internet is gone. Power might be gone, TV and radio stations are offline. No one knows why or how. Stores will be overrun and goods necessary for survival such as food, water, hardware supplies, medicine and gasoline will be sold out. People will be out on the streets and observing anyone’s actions every day in great detail.

After 1-2 weeks, the government hands out emergency food reserves. After at most 4 weeks those reserves will be exhausted. Supply chains might be restored at this point to some extent. However the time investment, risks and money needed to obtain food will increase immediately and dramatically. For example in order to be handed out a day's ration of food, every day you might be required to stand several hours in line and you will not be allowed to take more than for yourself. On your way home you might get robbed. This situation might worsen with time, such that obtaining food becomes too impractical and dangerous. People are beginning to starve after 3-6 months.

In urban areas, people will organize into mobs and gangs to steal from each other. It is difficult to predict how much this will be an issue. We know from historic examples, such as The Great Chinese Famine in 1958, that the police and military will not entirely break down and be able to maintain law and order to some degree. On the other hand, population density was much much lower back then, and high density is the main driver for mob and gang activity. Depending on where you live, ordinary neighbors could take up arms, team up to knock door by door and check homes for hoarded food, given that the situation for them was desperate enough. In any case, crime of any nature will increase several fold. Looting, theft, violence and burglary will become a common everyday occurrence, and walking alone outside will be much more dangerous. People will gravitate towards teaming up by family, ethnicity, religion or nationality and manufacture reasons to mistreat people outside of their group. Family and friends might betray you given that desperation or incentive is high enough.

The Great Chinese Famine, purely driven by government mismanagement, reduced the population by about 10% within two years. How many people will starve to death in what time frame is hard to predict and depends on your individual country's resources. However some people guesstimate it to be around 40-60% within a year, some even as high as 90%.

gradual slow collapse

The main difference in a slow collapse would be prolonged ambiguity of the situation, and hence uncertainty how to react to it. It might manifest at first as a recession or economic crisis, or partial and sporadic dysfunctions of economic and communication systems, maybe mixed with wars, eventually leading to the same outcome. This might continue for several years. Prices will make life unsustainable rather slowly over time.

The upside of this is, that the threats and problems are a lot less imminent and extreme. On the other hand by prolonging the situation, your preparations don't give you as much of an advantage to outlive the people who are unprepared, particularly so if you are poor to begin with. You might lose your job, car or home long before starvation becomes widespread. You have to expect, that the actions of other people against you will become more intelligent and organized over time. Also an ambiguous situation might seduce you to make poor long-term decisions. For example you might be inclined to live off your supplies without restocking them, supposedly only for a short while, rather than paying 2x or 5x the food prices that you are used to. Or you might feel that it is necessary to pay a lot of money on insulin and medicine for your sick relatives, or on pet food for your dog, rather than eating your dog. You might feel inclined to expose yourself as a prepper and share your supplies, if there is hope that the situation might end very soon and not continue forever.

The only solution to this problem is to act with foresight and reason devoid of emotion, and to make tough choices even when they are not really necessary at the time.

План:

Second to buying a large stockpile of food, planning is the most important aspect of prepping and can be highly individual to your situation. Particularly it makes a difference how rich you are and whether or not you can afford to bug out into an extremely rural area, or already happen to live there. Also you might be living in unusual circumstances, such as where water is scarce, which this guide will not really further explore. For simplicity sake, it is assumed that you are not wealthy, reluctant to spend money on prepping, and live in a western country and water-rich urban area, like 80% of the population in Europe or the US.

Your priorities in prepping should be roughly aligned with this graphic. You can't expect to survive, if the very select few people knowing about your supplies will not follow your plan and betray you. You are doomed when reacting emotionally and unreasonably, and don't have a plan that deals with every eventuality long before it occurs. You will be raided by hungry people if you don't make it your life's mission for your supplies and prepping efforts to remain a secret. You can't protect your supplies without weapons in a secure home. Finally it might be possible to survive without having hidden backup supplies, but it is still a huge risk. Equally, not having antibiotics or equipment like walkie-talkies might be a disadvantage, but it can still work out with a bit of luck. Last of all, skills and fitness are nice to have, but require enormous time-investments with comparably little benefit.

To sum it up, you should do everything you can, but not waste all your time on buying gadgets online. Or watching Youtube videos on how to make fire with sticks and build log cabins or forge knives from scratch. Most popular prepping and survival material online can actually be misleading and is often not helpul. On a very tight budget you should concentrate mostly on food, cheap weapons and water.

select people to trust and let them in on it

For starters, this should be at most the people who live in your home, like your wife or father, and worst-case it might just be you. The less people know about it the better.

You have to realize, that for every brother or sister you warn and let in on your efforts, they will have several people very dear to them who they will want to protect with all their heart and might if the disaster strikes. Their reactions to the subject are likely to be very emotional, quick, inconsiderate, judgemental, careless and presumptuous. But worst of all, most people will react with ignorance and disbelief to your warning. Most people are highly likely to not take the subject serious at all, no matter how dramatic, elaborate and convincing you explain it. And even if serious events were to unfold, they will downplay the gravity of the situation,

and still behave carelessly. From the family and friends I know well and trust, I can easily tell that at best only 1 out of 10 would pour even just 200 Euros into building their own stock of supplies, after hearing my advice. But 9 out of 10 would remember my warning in a blinks notice for the rest of their life, and run down into my home to take food when it came down to it. If you talk with friends or family about prepping, or maybe even just drop a hint at the doomsday scenario, they will easily be careless enough to chit-chat with their neighbors or coworkers about it. Or they might indirectly reveal it to relatives and other people, by somehow socializing with them about related topics. After starving for several weeks, all those people will suddenly show astonishing and unworldly powers of memory recall. Nothing you say will remain forgotten.

Telling other people about an apocalypse and urging them to prep for it, will be highly ineffective and only have a snowballing effect, resulting in a large number of unprepared people to raid your home and your supplies to diminish within days, instead of months and years. This helps no one.

You should take your chances only when the situation demands it, or if there is an unusual and extreme relationship of trust, e.g. a brother who lives alone and has no additional relatives.

You should have many intimate talks with the people you let in, explain the situation and your plan to them with great detail, emphasis and seriousness. You must make them understand that you have spent months into planning the situation out, and how other people pose a grave danger in case of societal collapse and famine. There must be no grounds for them to question your competence or reasoning, or else they might act carelessly out of line when they feel safe about it and eventually betray your group accidentally or with intent.

planning, foresight and reason

You will find a lot of advice on this website. However truly planning out the situation must still be done by yourself, by running the various scenarios through your own mind. You have to imagine what will be like, how people will react given different circumstances, how your close friends might feel and what to say to them when they call you in desperation or for help. Where will you get the water from, who guards your home, how will they cope with it. What are your neighbors like. How can you defend against attackers, reinforce the doors, not get seen, how to not stand out with your actions. What consequences will it have if you are attacked and have to act in self-defense. And so on and forth. Those are things that no guide can truly prepare you for.

All eventualities must be accounted for, and it is important to make tough choices when it comes down to it. This might mean to make them even if there was still hope for things to play out differently. Empathy, emotion and hope have no place, in a scenario where the odds play against it, and the consequences are life or death. With perfect reason it might make sense to leave your sick grandfather behind, or your pet, or any sort of similar thing that feels very difficult and unethical to do, but actually acts towards the greater benefit of your group. Nothing should be done by gut feelings or other forms of short-sightedness. Old notions of social cooperation, community and intrinsic trust should be questioned and reevalued at every moment’s notice.

It is important not wait until disaster strikes, in order to be cautious and vigilant about your actions. Taking it all serious should start today.

secrecy, seclusion, isolation

Human civilization thrives through cooperation. But this is only true when there is a certain level of food security and availability of resources (such as it is still the case with normal disasters or other classic prepper scenarios). In a doomsday scenario such as outlined with AGI however, you can expect that most people will gradually or dramatically switch to destructive, deceitful, violent or other antisocial behaviors. Therefore, the greatest threat you face in a societal collapse are simply other people and being exposed to them. The best strategy is then to just avoid them.

Even if there are initial advantages in going a cooperative route, the risk you are taking does not outweigh the benefit. Eventually the same people willing to help you will raid you for food if they run out. And you only make a name for yourself as someone "who can help" and likely also has food supplies stocked.

Your first priority should be physical distance. Prep and bug out into a secluded vacation home in the wilderness if you can. Or maybe you know a relative in a remote location, to whom you can build a high level of trust from now on, and eventually let him in on your prepping plans. The higher the population density is where you live, the more you should bend your mind around it in advance, to somehow be able to get to a safer, stocked, prepared and more rural shelter on doomsday. Generally speaking, staying in a urban environment is a very very bad situation. But in any case, you should stay in a very secure place where your supplies are and where you can defend them. So if it can't be helped to remain in an urban area, then you have to deal with it.

Other means of avoiding people are simply keeping quiet and a low profile. Don't behave suspiciously. Observe your neighbors. Don't give away cues such as a noisy generator, being the only home with lights on and power, hauling large amounts supplies, suddenly new solar panels or other fixtures, and maybe even a smoking chimney. Ask for food like other people but not too much. You want to talk with people as little as possible, and be seen as little as possible. But absolutely never being seen and never talking to anyone could make you stand out as well.

Don't chit-chat, ask for advice or otherwise talk on ham-radio on common frequencies without extreme reasons. You wouldn't even guess how easy it can be to identify and locate people when nothing of consequence was said.

Beware of other "preppers" especially, as they are inherently more dangerous than normal people. Most of them are unlikely to have more than 1 month of supplies, but they know all the tricks to identify other preppers and get food.

Never talk about prepping to anyone, never give away food to anyone, always play dumb. Nothing could be more critical to your survival than this.

redundancy

Friends, mobs or organized gangs might raid your place eventually. This is why you have to keep a certain larger amount of your food and a small second set of items such as weapons as backup, and hide it somewhere safe. Possible hiding places:

- **bury 200L drums where no one sees it** (reinforce with wood from outside to prevent collapse)
- erect a new drywall in a corner
- inside unused chimneys
- ceiling spaces
- under a large pile of rubble in an cramped attic

Only drums are really rodent-proof, so hiding bags of rice in the walls can be a risk. Rodents will start chewing through all packaging at the same time and spread dangerous disease with their feces. They can climb walls vertically and get inside homes in impossible spaces.

Ultimately finding safe hiding spots, other than burying drums outside, is challenging. If the situation was such that the risk to be raided was suddenly extremely high, then even just putting the backup supplies into places that are counter-intuitive and hard to reach or check could be very helpful. Thieves might feel most content with stealing your main stock and probably will not waste time on looking for any unlikely backups. Similarly desperate hungry mobs or neighbors are unlikely to think as far as to check your whole house for a hidden stash.

shelter & security

As mentioned earlier, you should always stay at the place where your supplies are safe. And if at all possible get very far away from people at the same time.

You should leave your place as little as possible and have always someone guard it.

Sleep at somewhat or entirely different times so that people can be on guard 24/7.

If guns are outlawed, have other weapons accessible in many places, such as spears in corners and crossbows to shoot through windows or doors.

If there are many sections in your house or multiple buildings, concentrate beds, people and storage all in one corner or section that is easy to defend and hard to break into. Install two drop bars behind the main doors from the inside. Unfortunately there are many variations of houses, rural or remote, so it is hard to give more specific advice about this. It is possible to break and overcome many common types of doors or windows in a matter of seconds, often even without any tools at all.

fitness

Do weight lifting, run marathons. Quit smoking, drinking, caffeine or drugs. A lot of medication like antidepressants, benzodiazepines, pain medication or statins are heavily overprescribed and questionable to use to begin with. They might be deteriorating your health and produce severe withdrawal symptoms. If you are obese lose weight. You can’t

expect to survive if severely sick and dependent on medication that will run out. Blood pressure medication can produce withdrawal effects as well. So if it is within the realm of reason, you should try to somehow fix your life and stress levels today, so that you can reduce your dose and maybe quit all together. If you are too old or sick, you should get comfortable with the thought to sacrifice yourself when it comes down to it, and save your children or relatives instead by following this guide.

skills

As mentioned, skills can be deceiving in that they will only be marginally useful, often cost you a lot of time to aquire and bother with, or give you a false sense of competence, secuity and alternative options. I will list some things here that are short to explain and have some value, to not clog up the other pages with information of low priority.

Food preservation and spoilage

By submerging foods in water and sealing the container oxygen is removed. By adding salt and/or vinegar, harmful microbes are put at a disadvantage. If this is done in jars to produce, a process called fermentation (via lactic acid bacteria) will start. Cultivating this microorganism provides somewhat of a guarantee that other microorganisms will die and the food will be safe to eat for a year or so. Fermentation will still occur at 3% salt and 3% acetic acid solution, but it will be significantly slowed down. 1% of both will still work out for a high success rate, or 3% of either or. Sugar only works to preserve food if used in extreme quantities, e.g. in jams, and otherwise it accelerates microbial growth, especially yeast, which are naturally present on some fruits. Similarly salt and vinegar do not kill microbes, in concentrations that you can still consider edible/palatable, if it wasn't for lactic acid fermentation to outcompete the other microbes. The goal in food preservation is therefore either to (lactic acid) ferment, or to remove water entirely, or both. Another method would be pressure-cooked jars, which relies on heat and specialized equipment.

To cure meat, rub it in as much salt as possible, ideally 2-3x in a row every hour, then smoke it over a fire for a few hours or dry it in the sun or over an heating oven. Just using salt without smoking or drying is rather prone to failure, even if you are curing whole cuts (which are sterile on the inside), and even if you do 6 rubs with salt throughout the day. Even if cured, as in salami, less-dry or humidity-exposed meat can develop molds on the outside which may or may not be safe to eat. Recognizing those molds without extensive experience is possible, but not ultimately safe. The safest mold color is white, while green might be so and so, and black, pink or orange is rather dangerous.

Generally speaking, fermented foods will have a very distinct, slightly odd but still pleasant taste, like Kimchi. Actually spoiled food that is not safe to eat can almost always be recognized by a very strong and repugnant smell and taste. Food that tastes excessively odd, but not outright repugnant, might still be safe to eat in small quantities but could cause strong digestive issues in larger quantities. This guideline is only true to naturally preserved food that is not older than 2 years.

Canned food where the can has bulged could be very dangerous and should be discarded.

If you are thinking about food preservation, you have to realize that there is hardly any place at all were this food will come from. Unless of course you live in a rural area or the wilderness. Trees will be picked blank, your horticulture will be raided empty. And it is not like you have a pig to slaughter or boar to hunt that you could cure and live off through winter time. For most people, those skills can hardly ever be put to use in the heat of a doomsday scenario. What counts is only the stockpile of food you have in your cellar. Always keep that in mind.

Вода

Water is the most important resource to have. In northern Europe, the US and Russia, it can simply be obtained from nearby streams and rooftops. However the water needs to be purified, or else you are at high risk of developing serious disease. If your situation is different, please inform yourself about alternative methods to secure water. It is realistic to exepect that clean tap water will still be available some of the time to some degree.

- at least 2x 200L drums to store water
- 30+ day supply of bottled water

water purification

- chlorine (bleach), 2-8mg/L
- iodine (alternative), 16-30mg/L
- camping straw-filters (<=0.1 micron), filters microbes as well as radioactive particles
- reusable plastic coffee filters for prefiltering

Chlorine and iodine, even if used beyond listed concentrations, are very very rare to produce serious health effects, if then mainly in people of poor health or old age. Adding more chlorine shortens the time you have to wait until the water is disinfected. For a high concentration (6mg/L), at least 30 minutes are needed if not several hours. For a low concentration (1mg/L), several days are needed and the water must be very clean to begin with. Prefiltering the water reduces bad byproducts from chlorination.

In a survival situation, high amounts of chlorine must be used, which makes it taste rather intolerable and undrinkable. Over time the chlorine will “air out”.

Straw-filters can be infused with iodine upon first use to make them more effective, by running a 1L solution of 100mg several times through. Dirty water needs to be pre-filtered with cloths and coffee filters, to remove particulate matter and solid material which would diminish your straw-filter’s max capacity. Add 2mg/L of chlorine (that is 0.5ml of 1% solution equal to about 10 drops, since 1 drop is 0.05ml, i.e. 1.42 drops if your bleach is 7%) to the filtered water and wait at least 2 hours before you drink it. Straw-filters also filter pathogens, but not all of them. Their main advantage is to somewhat reduce radioactive particles, some pollutants and to provide better prefiltering for chlorination.

Еда

In order to survive, you only need two basic foods:

1. meat (can be partially substituted with other animal products)
2. carbohydrate source

Please forget anything you have learned about nutrition that would contradict this. Unlike meat, most vegetables are devoid of most vitamins, proteins and fats you need to survive. Getting variety is nice, but overcomplicates things and can be misleading to your investments. Simply stocking up more meat and more rice means longer survival time. Putting that money instead into canned spinach and Brussels sprouts does not.

To deal with food expiration, the following techniques make sense:

- if you own a pet, build a 2-year stock of pet food for it and cycle the old cans
- freeze-dried survival food has a shelf life of 20-30 years
- rice, most beans, lentils, split peas and oats can last up to 30 years
- build a stock of canned foods and oils and continuously eat it yourself

It is important to note, that only a few foods have very high shelf lives:

- canned food 5 years, possibly much much longer but carries very small risk
- rice, oats and pinto beans 5 years or longer, 30 years if oxygen & humidity removers are used

Other foods such as oils, nuts, cured meats, dried milk, protein powder, and so on only last 2 years.

A sensible daily calculation for an adult would look like this:

- 250g rice (900kcal)
- 100g lentils, split peas or pinto beans (300kcal)
- 200g cat food, pure meat (250kcal)
- 40g sugar (160kcal)
- 40g cooking oil (350kcal)
- one-a-day vitamin

Total: 1960 kcal

Light physical activity only makes up a small percentage of your kcal requirements and can be ignored.

It would only cost 1100 Euros for 3 people to survive on this diet for 266 days, whereas 400 Euro are from stockpiled cat food, and 100 Euro is from stockpiled cooking oil. As you cycle those foods, this money is not actually lost, and you are only looking at a total of 600 Euros in rice, legumes and sugar to give you an additional 9 months of survival time for the next

20-30 years. In my country a kilo of rice costs 1.50 Euro, this information can be used to extrapolate prices from in yours.

I have put this plan first, because cost is the main issue that keeps people from prepping. Beware that dog food or cheap cat food might contain substantial amounts of wheat and vegetable refuse, which lowers its nutritional value accordingly. Proper cat food however contains only meat, including important organ meats and fats and it is fortified with vitamins, antioxidants and trace minerals, such as vitamin D, zinc, taurine and iodine. However as dogs tend to be much larger than cats, the amount of food you can stockpile and continuously cycle before it hits the expiration date is also much larger. 200g cat food roughly equals only 125-150g of actual meat, as it is cut with water and inedible parts such as hooves. With dog food it could be as low as 20%.

If you don't own a pet however, things can get much more expensive. Generally speaking, canned foods and other prepper food make a rather poor diet by 21th century standards. So cycling those foods in your own diet might not be an option. In this case, the most economic long-term investments are the foods that have a 30 year shelf life and whatever amounts of cooking oil and other foodstuff you can cycle within 2 years. If your can however, you should cycle at least some canned meats in your diet. Without any meat, you will suffer from severe malnutrition within 3-6 months, depending on your age and health, with a lot of luck at most you have a year until you perish.

- If you have absolutely no strategy for meat, buy a large stockpile of canned pure-meat cat food initially and restock a fraction of it every year, regardless of the fact that it will go to waste. A year worth for one person only costs 200 Euros, that's 80kg of meat, 60kg if you account for poor meat quality. Stock older than 5 years can still be valuable and better than nothing.
- Buy rice, beans, lentils and split peas in high quantities to last each person at least a year, and store them in large sealable plastic drums in a low temperature environment. Even if no oxygen removers are used, chances are that prepacked, dry and cool stored rice and legumes will be edible 20+ years. If you have more money, buy double or triple that amount. Remember, you might be stolen from so you need to have some level of redudancy. Beans and other legumes are rather poisonous if uncooked. Beans have a long cooking time (up to 90 minutes) and need extensive soaking (up to 12 hours) to reduce it. Rice (20 minutes) tends to be of much higher value and is cheaper, followed by black/red lentils then split peas (30 minutes). All of those can be soaked as well. It is advisable to cook beans and chickpeas only once a week to save energy.

Freeze-dried foods would be an excellent option, if they didn't sell for 10x the cost. A kilo of meat often costs 50 Euros instead of 5 Euros if freeze-dried and the same goes for other foods. Freeze-dried cheap emergency food rations are also garbage: 95% wheat flour and sugar. Depending on the size of your family, scale of your prepping and luxory you can afford, it might make sense to consider a freeze-drier for 3000 Euros instead. However shelf life might be much shorter in a DIY setup, since conditions are less hygienic and the foodstuff will rehydrate from the humidity in the air. I am not an expert on freeze-dried foods, but I believe them to be questionable due to exorbitant cost and various other issues.

A gas stove is recommended for cooking, since wood can run out and it draws attention:

- 2 x 11kg propane gas bottles, lasts about a year to cook for a small family
- propane cooking stove, with suitable hose and regulator

Salt and vinegar can't hurt, is very cheap and it does not expire.

horticulture

Farming your own food is dangerous and should be avoided. If you live remotely, chances are that you will already have good access to agricultural resources that don't make it to the cities, like grains, fruits or milk, which makes planting food yourself somewhat unnecessary. If you live in or near an urban area, it will only attract thieves and incentivize them to raid you. However you might have luck with a plant called topinambur, which few people can recognize, and hence can be disguised as a weed or flower. The tubers can be planted like potatoes, but are winter hardy and can be dug up and eaten all year. Use balanced NPK chemical fertilizer to increase yield by 3-6x. Only start horticulture, if you somehow can very effectively hide large amounts of crops on your property from neighbors, or if there hardly are any neighbors to begin with.

gathering

Foods on this list will only barely or only partially provide the energy you burn while obtaining them, or their availability is extremely poor. Also some of them have very poor nutritional value. This is why it makes only very limited sense to resort to these foods.

- acorns can be leached with water several days and times in a row to make them edible
- the ultra-thin cambium layer in tree bark is edible (some trees are deadly poisonous!)
- nuts
- mushrooms (dangerous!)

Tree sprouts, mosses and weeds provide too little energy to bother with.

hunting & fishing

Hunting and fishing only makes sense if you live very very remotely, and otherwise you should never attempt it. A viable hunting strategy would be to set up dozens and dozens of wire traps in your forest, check them every day and attempt to kill the predators that raid your traps. This takes a lot of time, draws attention and puts you far away from your home. Stalking large game is even more difficult and very time-consuming. However illegal passive fishing techniques, such as running large gill nets through a river to be checked the other day, could be very profitable. Legal fishing techniques like rods are very time-consuming, ineffective and useless. For hunting to become a viable strategy, it requires that you have little to no competition and access to vast amounts of natural resources (such as when living in the Alaska wilderness). This is unrealistic in most parts of the world and most people's situations.

Оружие

You should own guns with suppressors, a stockpile of ammo, a machete and a combat or hunting knife. Guns are always vastly superior, in any situation.

However most countries outlaw guns, which is why it makes sense to consider other options.

guns

- assault rifle (e.g. AR-15)
- handgun (e.g. Glock-19)
- silencer (search for: Napa 4003, solvent trap fuel filter)
- hollow-point bullets for handgun
- soft-point bullets for rifles

3D printed guns or DIY guns like the MAC-10 do not make any sense, because it is too difficult and time-consuming to make them operate somewhat reliably. If budget is tight, any handgun will do. Being able to conceal and hide your gun should be a main priority.

Hollow-point / soft-point bullets shred internal organs upon impact, and are therefore vastly superior in stopping power to FMJ ammunition.

bladed weapons

- machete (Tramonina, 14 inch)
- combat, hunting or comparable large kitchen knife

Machetes and swords should be modified with an angle grinder to make them shorter than 40cm, lightweight and suitable for thrust attacks, so that they are wieldable indoors.

arrowed weapons

Weapons that use arrows are very slow, bulky to use, inaccurate to shoot and vastly inferior to guns.

They also have questionable stopping power, because they cannot penetrate bones and they don't shred internal organs. However two options exist that are somewhat viable at a medium distance:

- 80lbs pistol crossbows with DIY 10 round magazines and broadhead tips
- Scuba Ringer, a two-shot harpoon handgun

Although it is possible to fit regular bows with 5 round magazines, or to hold 5 arrows in your shooting hand, it cannot be stressed enough that they are too bulky to use, too slow to reload and require too much skill to be a viable option. In absence of guns, pistol crossbows can work well at a max range of 15-30 meters and a "fast" reload time (below 1s). This could be advantageous if shooting outdoors or from a window. However at closer range indoors, a

machete or large knife might be more versatile and devastating if the opponent is not vastly superior to you in physical strength. You have to expect, that the opponent might continue to charge at you even after 2-4 shots have been landed, even if he might die from them much later on.

Arrowed weapons are not certain to work immediately. Their main advantage is to intimidate the opponent, by being able to hurt them from a distance where they cannot harm you, or being able to hurt them when you would not stand a chance in melee combat.

Pulling crossbows and bows might be too difficult for women or weak people, particularly bows. Shooting bows accurately requires a lot of practice, but crossbows much less so.

Without a magazine, arrowed weapons are rather useless.

other improvised weapons

- polearms/spears built from kitchen knives and broom sticks
- pry bars
- pipes and dumbells
- shovel sticks and garden tools
- baseball bat

The main focus of improvised weapons should be to make them very lightweight and swingable or thrustable/throwable. A longer weapon tends to be superior to a shorter one. Prybars and pipes can be very painful on impact without a handle, which could be wrapped from duct tape and/or paracord. Epoxy glue and pipe clamps could be used to manufacture polearms.

Other garden tools, such as pitch forks, axes, or shovel sticks can also be used and provide a huge advantage against an opponent without any weapon or a short weapon. But as explained, better options exist.

poison

While it might not make any sense to use poison in self defense, knowledge about poisons could be an advantage to deter theft:

- rosary peas contain abarin, delayed onset, lethal after 48 hours
- monkshood can induce hallucinations and even death upon skin contact - an old arrow poison
- foxgloves can easily lead to death if swallowed

Stocked supplies such as packs of beans and rice could be labeled with a warning about the poison and a numeric code, giving the impression that it is not safe to eat without understanding the code.

It is plausible that soft drinks could be poisoned with digitalis to exert revenge on thieves.

Poisoning arrowheads with monkshood is dangerous and might be too slow to act to be effective.

further considerations

Killing or severely harming people is greatly discouraged, even if you acted in self-defense and are backed by the law. This has two reasons. When law enforcement capacity is overwhelmed, mobs, angry family and neighbors will have much more freedom to exert revenge and take the law into their own hands against you - by whatever flimsy interpretation. On the other hand the authorities will gravitate towards punishing anyone without due process or investigation, and much more severely so, even if those laws hardly make any sense anymore in a collapsed society. Gangs may or may not communicate about which homes they are targeting for food in advance. Law enforcement may or may not confiscate your weapons and equipment and put you into a prison camp, where you will likely starve to death or be killed. The main idea therefore in using weapons, is to deter attackers with superior attack power, and to somehow manage to still fly under the radar.

Оборудование\Оснащение

This list only includes items which are not mentioned on the other pages, like “food” or “water”.

minimal / essential

- headlamps and inspection lamps
- 100x AA and AAA batteries
- camping USB solar chargers with battery (50-100€)
- 50x lighter
- 3x tarpaulin
- 10x zip ties
- 5x wet wipes
- ziplock bags
- 10x duct tape
- 10x bicycle tire
- paracord of various sizes
- cargo bikes, bike trailers and large carts
- a variety of tools, like hammers, nails, bolt cutter, cordless angle grinder, etc.
- cordless drill, screws, drills
- pry bar
- large axe
- fire extinguisher
- paper roadmap
- 2x 10W Baofeng ham radio walkie talkie (UV-13 V2 or similar)
- double-sized antennas for walkie talkies
- printout of common frequencies and frequency plans

- several more 200L plastic barrels
- 0.1mg scale (actually measures just 1mg accurately)
- 10x liquid (dish washing) soap
- 500kg FIBC bags or similar
- sturdy warm clothing an shoes for winter
- blankets
- 3L denatured alcohol

Walkie talkies of any type transmit speech unencrypted. CTCS and DCS modes block your own devices from receiving other devices, not the other way around. For your own communication, you should use the far end of the Baofeng frequency band that inferior devices or devices with region-locked firmware (Aliexpress has unlocked, Amazon might be locked) often cannot receive (e.g. above 512Mhz). Scanning hundreds of channels at the same time requires special equipment that next to no one has. On the other hand, as long as you press the button, anyone can listen in on your conversation if they scan through all of the possible channels sequentially and hit your channel in this moment. For Baofeng UV-13 there are almost ten thousand channels, which makes it highly unlikely to get noticed. For cheaper 0.5W devices like PMR446 there are only about 20 channels, which take a few seconds to scan. This is why you should only speak very very briefly, and ideally in code and without accent or mannerisms while not using a common 0.5W device. Never reveal names, locations or other details. Programming channels into these devices and toying with them will keep you busy for a week. In a city, the range of a 10W device can vary by particular location from 4km to 12km. A 0.5W device might have less than 1km of range. Double-sized antennas can extend the range anywhere from 25-100%. Ideal conditions, such as open fields and mountain or roof tops, can possibly increase the range by an order of magnitude. A “repeater” is a station operated by radio amateurs, which sits in an ideal spot and allows communication over a certain channel that needs to be configured in a special way. Sometimes those repeaters are chained together and allow communication across the country. If you want to listen on others, try to tune in on repeaters, PMR446 channels and around designated emergency channels from your country’s frequency plan.

optional / advanced

- 60L steel barrels for gasoline and diesel to escape or maintain car
- serious grid-independent solar setup (300-1000W panels) with multiple 100Ah+ batteries
- DIY crank / pedal generators for charging + 12V batteries
- mains power charger for your solar setup
- chain saw
- woodstove

*Important note on **diesel and fuel**: In EU countries, diesel expires after 6-12 months due to the added biodiesel. Severe damage to your engine from sludge is quite likely after that time period. Additives don’t really make a big difference. However, heating oil is perfectly equivalent to diesel and might not contain biodiesel. Hence its shelf life would still be about 10 years. Gasoline can be used for many years without engine damage, but its combustible energy degrades steadily with time and it might stop being viable after 3-5 years.* In an

emergency, diesel engines can also directly run on clean vegetable oil or waste motor oil, but for longevity it is not recommended.

Solar basics: Panels are not a usable power source on their own, and always need to charge batteries with an extra device (sometimes all-in-one only in camping panels). You need an inverter to convert to mains power voltage, or devices that power with the specific voltage of your setup (12V or 24V, rarely more). 36V panels can charge 24V or 12V, 18V panels can only charge 12V if they are not wired in series. Beware that efficiency can drop to as low as 1% of max panel wattage in winter in the northern hemisphere. Batteries on the other hand don't store a whole lot of power. So you might quickly run out of it in a matter of days or hours, if there is little sun. You might be able to run a small fridge with a 300W panel setup and maybe a very energy-efficient freezer with a 1500W panel setup, but only barely and not with a all-year guarantee. Cooking water and rice is possible, but as a rule of thumb you should always use gas for heat generation and never use solar, because of the extreme power demand. Microwaves run on most 4000W inverters (which only have 2000W continuous output), while water cookers usually need 3000W inverters (1500W actual). Batteries degrade in quality with time, especially due to deep discharges, and may need to be replaced after as little as 4 years (lead-acid). For maximum longevity, never discharge below 60-80%. This would equal to 4x 75Ah batteries for just running a small AAA+ fridge under ideal sun conditions and several more batteries if you use power more extensively. A 100W panel setup with battery and inverter can mostly only run lights, USB charging and small electronics. It costs about 300 Euros. A 1000W panel setup with 6x 100Ah batteries and 3000W inverter costs about 2000 Euros. Economically it makes more sense to use oversized panels, because panels don't really degrade, last 25 years minimum and can compensate for degraded batteries, especially in winter. Beware of fantasy values for Wattage on Amazon/Aliexpress and gross exaggerations about battery longevity. Any grid rooftop solar panels can be retrofitted to charge car batteries with a solar charger, however they are basically useless without those two components.

Diesel generators: Are very loud and they consume a lot of diesel, which is expensive and will quickly run out. Unless you are willing to stockpile ridiculous quantities of it. However they do produce a lot of power reliably, such as 2000-4000W, which solar most certainly does not. Used generators are also very cheap. Running a diesel generator will certainly attract thieves. So this is only something to potentially consider in a rural location, e.g. to pump water or as a backup to solar.

DIY pedal and crank chargers: require uncommon components and need to be bought and build before the fact. It is rather difficult if not unfeasible to improvise common devices, such as car alternators or power drills, to reasonably charge 12V batteries. Most instructions on Youtube and Facebook are fake and will at best quickly destroy your batteries.

digital

Phones and especially books should be considered as unreliable and too time consuming to toy with in a survival scenario. They are not immediately useful, but it also can't really hurt to have them and it depends on the situation.

- 256GB SD card

- phones that can read NTFS or exFAT formatted cards (e.g. Samsung, Xiaomi)
- offline Wikipedia with images (100GB file), Kiwix file & Kiwix APK
- Maps.me with maps downloaded to SD card (use vrishatech APK Extractor & Split APK Installer)
- survival books (can be found on The Pirate Bay)
- ripped websites for Kiwix reader

Медицина

essential medication

Antibiotics are of uttermost importance. Online pharmacies are decently safe to order from, but in some countries you can also buy veterinarian antibiotic products without prescription.

- broad-spectrum antibiotics (e.g. Metronidazole👍, Gentamicin, Clarithromycin, Ampicillin)
- NSDAIDs (Aspirin, Tylenol)
- Lugol's iodine (5%)
- one-a-day vitamins
- first-aid kits

If you have any severe health conditions, you need to stockpile medication against it as well.

how to use

For doomsday survival purposes, please take the following simplifications as guidelines:

- all pills, except for *maybe* 10 year old tetracyclines, have an infinite shelf-life
- non-narcotic medicines can be safely and arbitrarily combined in 99% of cases
- antibiotics are safe and work wonders, even if taken just once or for 1-3 days
- antibiotic resistance is a hoax insofar as that it has anything to do with your behavior
- if in doubt, always administer antibiotics for serious conditions and deep wounds
- in absence of better information, take 2 whatever a day but no more than 4

In order to get the best out of your **antibiotics**, wait until disease has seriously manifested and is hard to tolerate (usually day 3 or 4). Take them a couple of days until you feel better. If disease returns, repeat. If they don't make you feel better stop taking them or try a different one (esp. if also experiencing weird new symptoms, such as rash or itchiness). If the source of infection is a dirty cut or gunshot wound, take antibiotics immediately every day for 6-10 days instead, possibly longer if symptoms have been severe. Metronidazole and tetracyclines are the most versatile ones and also works against amoeba. But resistance with some diseases (esp. with tetracyclines) is not uncommon.

Take **NSDAIDs** only to lower fever, avoid using them for pain.

Lugol's iodine (5%) can be used for water purification (see "water"), wound disinfection and thyroid blockade (nuclear disaster). For the latter purpose, take 130mg throughout the day (20 drops) for about 30 days, reduce dosage the next 30 days. After the first 30 days, the radioactive iodine has decayed 10x, the following 30 days it will decay 100x. If you are over 50 or the country/site of the nuclear disaster is very far away from you, take only 1mg/day for 60 days. Thyroid blockade only protects the thyroid against radiation, not the rest of the body. Its usefulness for bare survival is rather small.

Control bleeding: Apply a tourniquet if the wound is severe (e.g. gunshot) and bleeding is considerable. Tourniquets should not be left in place longer than 2 hours and removal of the tourniquet can become life-threatening after 6 hours. Pack the wound with gauze if possibe (but not in abdomen, chest or neck), then apply a pressure bandage. If the injured person is not in shock and a hospital is not available, loosen the tourniquet and monitor the wound for bleeding. The key here is to get rid of the tourniquet within 2 hours, but not at the expense of killing the person with blood loss. Please watch more detailed instructions on how to provide first-aid and apply tourniquets.

Wound disinfection: Try to wash the wound thoroughly with soap and clean water, rinse, tap dry with sterile tissue. Use Lugol's iodine on wound. If not available use alcohol in case of severe contamination, if not use nothing. Try to avoid dressing the wound initially, if conditions are clean and uncomplicated. Use iodine or alcohol only once initially. Slashes from knives or machetes may only need superficial disinfection, because the blade was clean to begin with and the grime wipes off and concentrates at the upper skin layer. Similarly, bullets and puncture wounds might be rather clean in nature. However, as there are many types of more severe injury, the best cleaning strategy depends on the individual situation.

Surgery: I am not an expert on surgery, and you are unlikely to find any good DIY survival books on this topic (The Survival Medicine Handbook has a small section on sewing). If at all possible, you should not attempt it, but have a hospital deal with it instead. Also consider other methods, such as duct tape, for addressing superficial skin cuts. However suppose someone cut off half your leg, you live remotely and hospitals are not operational. What can you do about it? I would say that it is highly unrealistic to sew severed arteries back together. It might however be realistic to be able to sew tendons and muscles back together. Similarly, deep tissue cuts could be addressed by sewing and of course skin can be sewn together. Surgery requires a lot of knowledge and skill. It needs to be practiced beforehand, on sponges, fruits or latex mockups. Silk will actually absorb after 1-2 years, so it might still be a viable alternative, if vicryl/collagen is not available. In summary, surgery is a questionable and very advanced skill to ever put to use.

optional medication

- antibiotic wound spray for cattle
- Hemostatic gauze
- large dog dewormer
- misoprostol (hold 2400mcg under tongue, then 800mcg after every 3 hours, up to 5 times, until fetus is aborted. Might be unsafe after 20 weeks pregnant. Extremely painful. May need hospital assistance, esp. after 1st trimester. Triple as effective

when combined with 200mg mifepristone given 32 hours earlier. In this case only half of the misoprostol doses are needed, i.e. 1200mcg, then 400mcg up to 5x.)
- ivermectin (works against various parasites, anti-viral in huge doses)
- potassium supplement (rehydration therapy, not contained in one-a-day vitamins)
- absorbable and regular sutures with needle and forceps (metric 3-8, USP #2-0, #0 - #2, Chinese #10 - #15, vicryl/collagen & silk)
- nitrile gloves
- alpha-1 agonists for surgery (e.g. epinephrine injection, oxymetazoline nasal spray)
- tranexamic acid for cases of significant bleeding or trauma