

BLACKOUT SURVIVAL v2

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BLACKOUT - IMPACT

As of today, we are more than ever depending on an intact electric power grid in our daily life. We can divide that dependency into private and public infrastructure:

Private Infrastructure

- * Fridge and Food Storage
- * Heating Installation
- * Food preparation and cooking
- * Water boiling
- * Mobile device charging
- * Computers and other electronic devices
- * ...

Public and/or Commercial Infrastructure

- * Traffic Lights
- * Automatic Doors and Entry Systems
- * Public Transportation
- * Fuel Pumps at Gas Stations
- * Cash Dispensers / ATM
- * Cooling Systems at Shopping Malls and Grocery Stores
- * Power for medical devices at Hospitals
- * Nuclear Powerplants require a functioning cooling circuit even when turned off
- * ...

Most of the above mentioned topics require a permanent electric supply, and an outage of only a few hours might have serious consequences to private and public life and overall health.

BLACKOUT - ITEMS

It makes sense to be prepared, which is not as hard as one might think. Generally, you should be ready for an outage of 10-14 days at least, b/c that is the time that emergency logistics require to be fully deployed and usable in a well-organized country.

- * spirit stove, spirit
- * gas stove, gas cartridges
- * bushbox, firestarter
- * pot, cup, bowl, spork

- * Battery Pack/Powerbank for USB charging
- * Generator, enough fuel + 2 cycles oil
- * Solar Charger Pad, Battery Charger, Batteries
- * Flashlights, Amateur Radios

- * Water filter (ceramic / micro fiber)
- * 20-30l of water
- * Dry food like rice, polenta, noodles
- * High fat food like walnut, peanut
- * Olive oil, sesame oil
- * Dry herbs/spices mixtures e.g. Zatar, Baharat
- * vitamin/minerals supply, e.g. spirulina and chlorella algae

- * disinfectant
- * dust mask
- * first aid kit + charcoal tablets, teatree oil, headache/feever medicine, ...
- * toothpaste and toothbrush
- * soap and/or cleansing tissues

- * some sets of fresh clothes, beanie/buff/hat
- * (outdoor) clothing for bad weather
- * backpacks (ideally 30l + 42l~55l)
- * ideally: complete hiking and trekking equipment (which already covers alot of the above)

BLACKOUT - MOBILITY

Mobility might be a very important thing as to enable retracting yourself from a potentially dangerous area, to reach out for more supplies and generally to be able to have your own sort of logistics and transportation at least partially working despites public outages:

- * 4x4 car that is able to go into off-road areas + 20l extra fuel + jumpstarter powerpack
- * drone for recon tasks (battery management might get complicated)
- * cash money to be able to buy, trade or exchange items or services
- * H1K3 (30l): gear to be able to walk ~ 20-25km to explore the area, food for 1-2 days
- * 7R3K (42-55l): gear to be able to walk ~ 50-100km over 4-8 days, food for 1 week max.

The equipment contained in H1K3 or 7R3K should at least include:

- sleeping bag, pillow, iso mattress or seat cussion
- (ultralight) tent, tarp or hammock
- gas or spirit stove and enough cartridges or combustibile
- cooking pot, bowl, cup, spork ...
- bushbox, firestarter, knife
- water bottle(s), food supplies
- flashlight, powerbank, mobile phone/GPS, amateur radio, sat phone

Eventually, it might be a bad idea and inefficient to use e.g. highways to leave cities as there will potentially be large traffic jams, accidents etc. completely blocking lots of people, thus going off-road might be the better option despites including other kinds of dangers. So, it might make sense to plan on including different scenarios, have fully packed hiking and trekking equipment and some water supplies in your car so that you can still survive and explore the area in case of bad things happening.

Remember: Water is far more important than food – 3-4 days w/o water can already be fatal, while a healthy person might survive weeks up to months w/o food. That is another reason why **water filters** are a very important item to have which enables you to refill your supplies and use emergency sources rather than tap water.

BLACKOUT - MODULARIZATION

Modularization makes a lot of sense wherever you have groups of items that form a functional unit. It is not only perfect for long-time storage, but also for generally having a good overview of inventory pre-sorted in packing cubes.

As we could see in the previous two slides, certain items can be grouped together, namely items relevant in the areas of:

- power and electricity (flashlight, powerbank, batteries, generator+fuel, car, ...)
- communications (mobile phone, tablet, laptop, amateur radio, ...)

=> above group items should ideally be stored in drybags to avoid getting damaged

- preparation and consumption of food (spirit/gas stove + combustion/cartridges, pot, bowl, spork)
- medical and hygiene (first aid kit, disinfectant, cosmetic tissues, soap, toothbrush/-paste, ...)
- clothing (outdoor jacket, appropriate shoes, some sets of underwear, ...)
- transportation (4x4 car, bike, boat, ...)
- water and food supplies + required container(s)
- more outdoor equipment (tent, hammock, sleeping bag, pillow, ...)

Some items may be overlapping in between the different modules, but that is not problematic as long as you make sure the availability of the item, which brings us to the next important principle also coming from information technology.

BLACKOUT - REDUNDANCY

As with everything that is really important, it is a must have to have more than only one of these items, simply b/c you cannot bet on just driving to the shop buying another one and it might become more important than you ever thought beforehand.

Especially, devices and items which you are relying on heavily like

- any type of stove (gas, spirit)
- tools to ignite a fire
- important electric items (power bank, flashlight, solar charger)
- important communication devices (phones, amateur radio)
- containers to store or transport items
- backpacks, packing cubes
- essential medical and hygiene items

should be available more than once. If you followed the mobility section closely, you already know of a very good method to ensure redundancy – simply have two backpacks w/ the same basic items at your availability, differing only in size and thus the amount of clothes, water and food.

Of course, you may expand that principle so that you might have two backpacks permanently in your car and two others permanently in your house or basement, but always think about the „volatile“ items like food and water which may have to be refreshed from time to time and always check for equipment integrity. The latter can be done by regularly conducting trekking and hiking tours, just switching in between your different sets in a round-robin fashion.

In any case, it makes sense to store things at different locations – imagine you lose your car or you are unable to enter your house, but the probability to lose both at the same time might be lower.

Ideally and on a really professional level, you might have one or more complete sets safely stored, hidden somewhere in the woods or at another secret location. Even better, you might know other people that are part of a group that forms a social community if a blackout situation occurs. On the other hand, that might lead to strong interdependency which can be a drawback as well.

BLACKOUT - TRAINING

It has been already mentioned, but it cannot be stressed enough that regular training is one of the best guarantess to succeed in whatever your plans are in case of a long-lasting blackout, natural catastrophe or similar bad events.

The purpose of that is not only to be familiar w/ actions and tasks, but also to be generally fit to carry out required efforts which greatly reduces the danger of injuries, loss of important devices or items, and a general more relaxed attitude which – as you might already know from doing incident response – is one of the key elements of succeeding.

Regular training also implicates the regular usage and thus check of your items so that you can be sure that it works and is in a good state. If you are on a more professional level, you might want to have two of each item for redundancy and a third one as emergency stock or to help others, depending on your character and social attitude.

For me personally, food preparation is a very nice area to learn more, since I like cooking alot and doing this outdoor in a natural environment greatly reduces your possibilities but also might increase creativity, ultimately leading to really tasty and healthy meals.

Last but not least, I think ~~müsli~~ [porridge](#) (ideally w/ dry fruit and nuts) is a very suited type of food to get stored over very long periods of time while containing lots of energy and vitamins in itself. So that is not only perfectly suited for hiking and trekking, but also to be stored as emergency food rations. It can be prepared w/ hot or cold water, milk or whatever you like.

However, you should [check for allergies](#) before you blindly buy stocks of food that might bring you in a bad condition.

BLACKOUT – 0x06 Disclaimer

DISCLAIMER and Prologue

Due to recent events, we might be closer to the „practical training“ than we ever intended to be. However, you have the chance to prepare yourself, so please do so. This is no real v2 version and the previous content has not really been reviewed, but IMHO still consists of things that might potentially help.

*As a researcher from the computer and network security community, concepts from a „perspective of paranoia“ make sense to anticipate and allow one to think of potential issues before they occur. **However, please do not understand the following content as a reason to have a negative view or bad perspective for yourself.** Read it, see if it can help you, and do what you can get out of it.*

This whole document reflects my personal views and experiences, and I do not guarantee for anything. Please check for yourself if the content might be appropriate or inappropriate for your personal situation, for example b/c of allergies or other medical conditions that somehow limit or otherwise impact your ability to follow the mentioned proceedings.

*It consists of quite some research results done by me very recently, includes some images and is far from being complete (yet) or perfect. However, I felt the urge to communicate my findings at least to friends and family (and their friends and family). **WARNING:** Might include some sarcasm and ironic comments as well :-)*



BLACKOUT – 0x07 **Keep Calm**

First of all, keeping calm (and organized) is by far the most important central theme of your success. So here are some basic overall rules:

A) DO NOT UNDERESTIMATE POTENTIAL ISSUES

You might be well organized and in control, but there are things which might be rather out of your control, like other ppl requiring attention or help, other ppl panicking, violence or other from your actual perspective unpredictable events. Also, you might run into medical conditions which you did not expect, more on that later.

B) DO NOT PANIC

You might already know it from your work: It is by far the worst thing to be hectic and to panic b/c you now urgently need to do \$stuff. There will be ppl proceeding that way, and it will be inevitable to occur to somebody. However, do your best to just prepare yourself, so that you can stay rather relaxed which may also enable you to be in a position to support and/or help others.

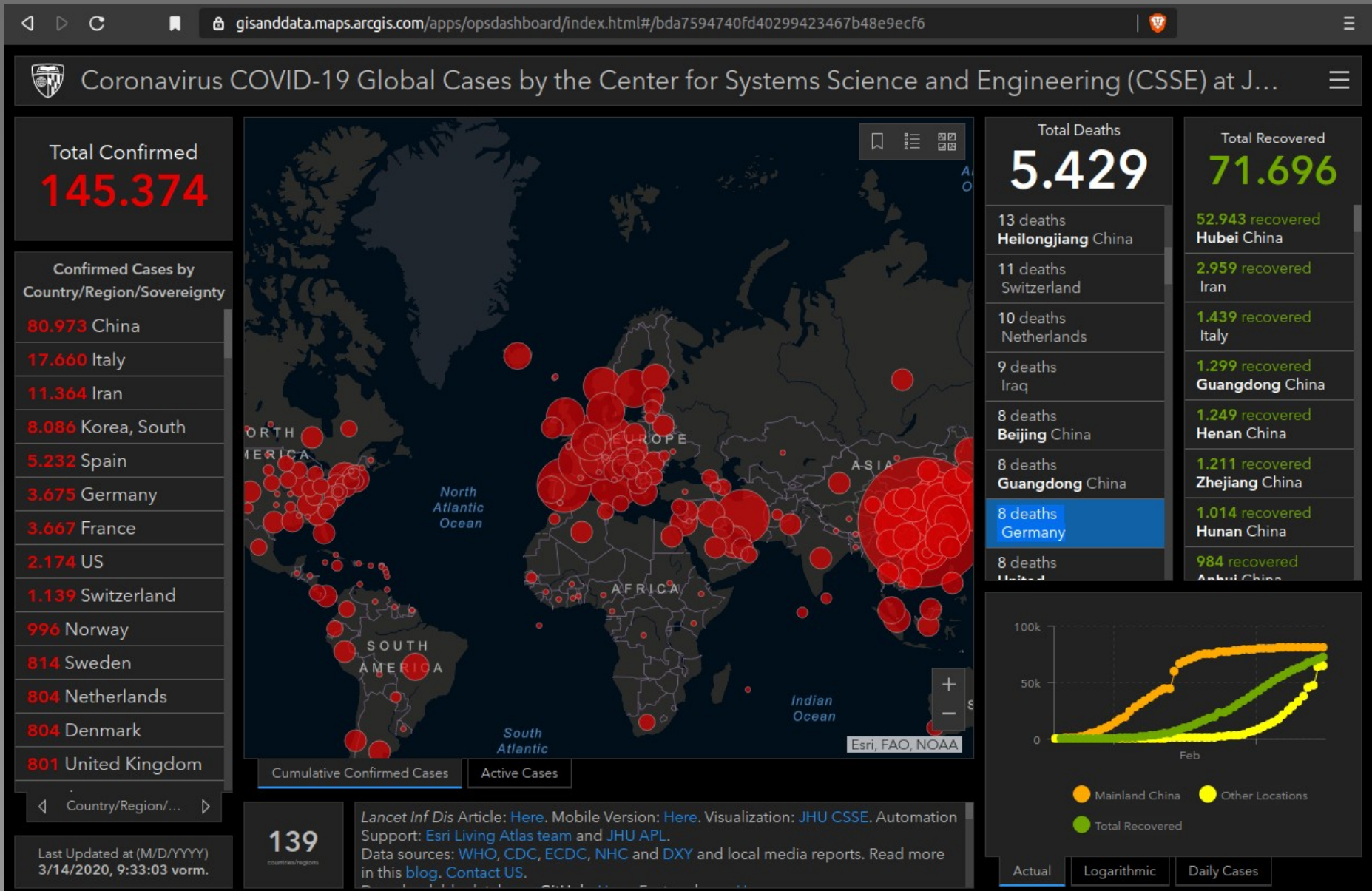
C) CHECK STATISTICAL NEWS AND UPDATES

There is a good statistical site which I have been regularly checking since 30012020:

<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html>

I will shortly make available a ZIP archive of all data (screenshots) that I collected and which allow to analyse the spread, draw conclusions about well organized and unhappily some not so well organized country-specific proceedings etc. w/o the urge to have a live internet connection, which however I strongly recommend. As of March 14th 2020, the site looks like this:

BLACKOUT – 0x08 Statistics



BLACKOUT – 0x09 Research

You can spare some time, as I already did quite some research when I had the time over the last two weeks. Some of it might be a mixture of german and english, but i guess it is on one hand better than nothing and on the other hand can certainly a base for your own research.

Let me structure the following into these sections:

R.1 Disinfectants

R.2 Nutrients, Micronutrients and Vitamines

R.3 Hygiene

R.4 Notes on Psychological and Physical Interdependence

R.x Most References

BLACKOUT – 0x09 R.1 Disinfectants

There seems to be already a run for disinfectants since a while (which might also reflect panicking ppl), and there are different classifications for the purpose and efficiency of disinfectants:

de.wikipedia.org/wiki/Desinfektion

Weitere Wirkstoffe [Bearbeiten | Quelltext bearbeiten]

Wirkstoff	Bakterien	Tuberkulose	Sporen	Pilze	Viren	Anwendung
Aldehyde (Formaldehyd, Glutaraldehyd/1,5-Pentandial)	bakterizid	tuberkulozid	sporizid	fungizid	viruzid (behüllt und unbehüllt)	Raum-, Geräte- und Flächendesinfektion
Ethylenoxid	bakterizid	?	sporizid	fungizid	viruzid	Oberflächen, Instrumente, thermolabile Arzneimittel, ^[4] Lebensmittel
Alkohole (bspw. Ethanol, 1-Propanol)	bakterizid	tuberkulozid	wirkungslos	fungizid	teilweise viruzid (nur behüllt)	Haut, Schleimhaut, Oberflächen, Instrumente
Phenole (Chlorxylenol, Triclosan)	bakterizid/bakteriostatisch	?	wirkungslos	fungizid	viruzid (variabel)	Haut, Schleimhaut, Oberflächen, Instrumente
Stickstoffverbindungen (z. B. quartäres Ammoniumsalz bspw. Benzalkoniumchlorid)	bakterizid (eingeschränkt bei Gram-negativen)	?	wirkungslos	fungistatisch	teilweise viruzid	Haut, Schleimhaut
Weitere Detergentien (bspw. auch Tenside wie Cetyltrimethylammoniumbromid)	bakterizid (variabel)	?	wirkungslos	fungistatisch	wirkungslos	Haut, Schleimhaut
Chlorhexidin	bakteriostatisch	?	wirkungslos	fungistatisch	virustatisch	Haut, Schleimhaut
Guanidinderivate (bspw. Cocosporylendiaminguanidiniumacetat)	bakterizid	?	sporizid	fungizid	virustatisch	Oberflächen, Räume
Octenidin (Octenidindihydrochlorid, oft in Kombination mit Phenoxyethanol)	bakterizid	tuberkulozid	wirkungslos	fungizid	viruzid	Haut, Schleimhaut
Polyhexanide	bakterizid	tuberkulozid	wirkungslos	wirkungslos	viruzid (behüllt und unbehüllt)	Haut, Schleimhaut
Kupfer, organische Quecksilberverbindungen, Silber	bakterizid	wirkungslos	wirkungslos	wirkungslos	wirkungslos	Silber: Infektionsprophylaxe in Wundauflagen, Beschichtung von Kathetern, Wasserentkeimung

You can see that there is hardly any single substance that can be used against any potential threat (bacteria, tuberculosis, spore, fungus and virus) and which is at the same time suited for multiple areas. However, if you look @ ethyl alcohol or spirit, it is pretty effective in many areas and can at the same time be used as a combustibile, and that is what I have besides some ~ 20ml of Propanol-2, some hand disinfectant gel and of course **regular soap**.

BLACKOUT – 0x09 R.1 Disinfectants

So, if you have the possibility, and nothing else is available, I would recommend to get at least the following:

Spirit a.k.a. Ethyl Alcohol

- a) great as an aerosol to be able to disinfect items, your hands and so on
- b) by soaking clean tissue w/ it, it is very suited to disinfect certain items like thermometers, instruments, door knobs / door handles and so on
- c) for emergency disinfection of somehow contaminated items, you can just fill a small bowl w/ spirit and put the item in, or you can comprehensively spray its complete surface from all sides
- d) as previously mentioned, this is a great (and my favorite) combustible

SOAP

is also a very powerful item to have and use regularly. Let me quote what I found online:

„Soap destroys the integrity of cell membranes, which consist of a lipid bilayer of polarized molecules. Regular soap kills bacteria, fungi, protists (such as single-celled amoeba).

Regular soap is not expected to kill viruses because a virus is not a cell with cell membrane instead, they are obligate intracellular parasites which must infect a host which is a cell, or has cells.“

When using soap, you should wash your hands for 30 seconds w/ hot water and soap foam.

BLACKOUT – 0x09 R.2 Nutrients

If you rely on canned food, are unable to buy fresh food, and/or already have a past of not eating too healthy, **or if you are a not too experienced vegetarian or vegan**, issues might arise that can quickly become threatening, especially on low levels of [vitamin B12](#) and [folic acid](#).

Please remember: It is always best to just eat food that is healthy and contains what you and your body need rather than to regularly take dietary supplements of substances which might be highly overdosed and thus create other potential issues.

That being said, food containing natural folic acid along w/ vitamins and quite some nutrients are for example [walnuts](#), [peanuts](#), [eggs](#), and [green salads](#).

If you experience a lack of folic acid and vitamin B12 over some time, there can be serious impacts to your health, and that is b/c of a substance called homocysteine. It is toxic and your body **HAS TO GET RID OF IT** (and does so when you are healthy and eat healthy) but is not able to do so any longer. Below is a list of potential effects (right now in german, sorry):

Folsäure ist ein besonders wichtiges B-Vitamin. Da Folsäure für viele verschiedene Prozesse im Körper notwendig ist, beispielsweise Zellteilung und Blutbildung, sind die möglichen Symptome eines Folsäuremangels sehr vielfältig:

- Blässe
- Leistungseinschränkung
- Müdigkeit
- Konzentrationsschwäche
- depressive Verstimmungen
- Schlaflosigkeit
- Reizbarkeit
- Vergesslichkeit
- Atembeschwerden
- vermehrte Blutungsneigung mit Schleimhautblutungen
- punktförmige Blutungen in der Haut und Blutergüsse (Hämatome)
- erhöhte Infektanfälligkeit
- Veränderungen der Mundschleimhaut
- entzündete, gerötete Zunge
- Magenschleimhautentzündungen
- Darmschleimhautentzündungen
- Durchfall
- Gewichtsabnahme infolge gestörter Nährstoffaufnahme

BLACKOUT – 0x09 R.2 Nutrients

Now in exactly that emergency situation and only if you have nothing else available, it might be good to have a dietary supplement of B6, B12 and folic acid at your hands. On the the other hand, vitamin levels are so high that if you take this over a longer period, you might get sick from the overdose as well. To be in a bit better situation, I made a table containing some common products and/or food and their respective levels of nutrients, micronutrients and vitamins compared to one DE/EU standard and one university which has its own (but similar) quantities/amounts:

```
1 +-----+
2 +-----+
3 . . . : ..:: NuSEC Research: Nutrient, Micronutrient, Vitamines ::.. 08/09,03,2020 : : . .
4 +-----+
5 +-----+
6 Nährstoff: B1 B2 B6 B9/Folsäure B12 C D3 E Calcium Eisen Zink Jod Fluorid
7 +-----+
8 Referenzwert UNI HH: 1.2mg 1.4mg 1.5mg 400µg ? 100mg 14mg 100mg 10mg 10mg 200µg
9 +-----+
10 Menge: 1.42mg 200µg 4µg 5µg 11.25mg 800mg 14mg 10mg 148µg 3.4mg
11 Referenzwert LMIV (errechnet): 100% 100% 100% 100% 100% 100% 100% 100% 100% 100%
12 +-----+
13 FolPlus: 4mg 400µg 30µg
14 % LMIV: 280% 200% 1200% <<<
15 +-----+
16 FolPlus+D3: 4mg 400µg 30µg 20µg
17 % LMIV: 280% 200% 1200% <<< 400% <<<
18 +-----+
19 Mivolis Vitamin C: 240mg
20 % NRV: 300% <<<
21 +-----+
22 Mivolis Eisen+Vit. C: 67mg 7mg
23 % NRV: 84% 50%
24 +-----+
25 Vegetarier Vitamine: 2.2mg 2.8mg 1.4mg 5µg 5µg 400mg 10mg 5.0mg 100µg
26 % NRV: 200% 200% 100% 200% 50% 71% 50% 67%
27 +-----+
28 1x Ei roh/gekocht: 100µg 408µg 77µg 74µg 1.9µg
29 % UNI HH: 8.3% 3.43% 19% 18.5%
30 +-----+
31 4x Ei roh/gekocht: 400µg 1.6mg 308µg 296µg 7.6µg
32 % UNI HH: 33% 114% 20% 74%
33 % NRV: 21% 148% 190%
34 +-----+
35 Portion Jodsalz+F (2g): 40µg 0.62mg
36 % NRV: 27% 18%
37 +-----+
38 alpro Kokosnuss (100ml): 0.38µg 0.75µg 120mg
39 % NRV: 15% 15% 15%
40 +-----+
41 alpro Mandel (100ml): 0.21mg 0.38µg 0.75µg 1.80mg 120mg
42 % NRV: 15% 15% 15% 15%
43 +-----+
44 Sanatur Bio Spirulina (3x4 Tabletten): Vitamin A: 320µg (40% LMW) 6.24mg
45 % NRV: 44.5%
46 +-----+
47 NRV: Nährstoffbezugswerte gemäß Lebensmittelinformationsverordnung (LMIV)
48 UNI HH: Uni Hohenheim (URL: https://projekte.uni-hohenheim.de/wwwini140/info/sonstiges/zufuhr/m_25_50.htm)
49 +-----+
50 Still Missing: Natrium, Magnesium, Kalium, Phosphor => Mineralwasser
51 +-----+
52 +-----+
```

BLACKOUT – 0x09 R.3: Hygiene

Hygiene is essential, not only when you have to stay at home for some while, but also in everyday life. However, I also have to admit that I was not an expert and I guess many are not. So what I did over the last two weeks is check for potential issues, and adjust behavior and cleanliness in many areas.

a) General Cleanliness

Imagine that **mold-produced mycotoxine** exists in your apartment or in your house, especially in combination w/ this years weather being

- not really cold or freezing
- not really warm, hot or sunny
- not really dry but wet and rainy over a long period

Mycotoxines can have very negative health effects, e.g. produce allergies, and should be kept away from your personal living space.

P.S.: Remember: Ethanol / Spirit is also a fungicide

b) Clothing

Also, what about fresh and clean clothing readily available to you? It might not be practical to have a bunch of dirty clothes lying around waiting for your mother or girlfriend to pick it up and clean it for you like in the last 20 years* to pick it up as every week when there is no electricity and no big travel or ppl being in the streets anymore. So, learn how to clean your stuff, learn now how to have a sort of stock of clean towels, underwear, pants and so on for ~ 2-3 weeks. Get what you need and learn what this requires NOW. Put dirty clothes in plastic bags and/or some other good storage (pelicasas might be luxury but also effective IMHO).

* might be exaggerated tho back in the dayz I met ppl @ campus where exactly this was the case :)

BLACKOUT – 0x09 R.3: Hygiene

c) Dinnerware & Cutlery

The recommendation is to use throw-away dinnerware and cutlery, but I think having a „normal“ sized set of 6-12 pieces which you clean regularly AND USE ONLY ONCE per piece and per day would also be sufficient. However, the throw-away option is surely more hygienic but also wasteful and environmentally bad.

d) Sleeping Bag, Iso Pad, etc.

If you like to do and are thus hopefully experienced in area of the hiking, trekking and outdoor activities, you might be in the situation to have multiple sleeping bags, pillows, camping mats or sleeping pads. This is a good idea, simply b/c it gives you more flexibility, either in your own apartment/house or wherever you plan on staying for the next few weeks. This does **explicitely not** mean that you should sleep at a different place using different items every day/night, simply b/c then they all might become „contaminated“ all at once in a short timespan (which brings us back to the area of organization which is a very important and basic foundation thus I started w/ that).

e) Quarantine

If you show symptoms, you should compare them to this table, [wear a facemask](#) and isolate yourself for 14 days:

Symptome	Coronavirus	Erkältung	Grippe
Fieber	häufig	selten	häufig
Müdigkeit	manchmal	manchmal	häufig
Husten	häufig*	wenig	häufig*
Niesen	nein	häufig	nein
Gliederschmerzen	manchmal	häufig	häufig
Schnupfen	selten	häufig	manchmal
Halschmerzen	manchmal	häufig	manchmal
Kopfweg	manchmal	selten	häufig
Kurzatmigkeit	manchmal	nein	nein

*trocken, Quelle: APA/WHO, CDC, WELT

* as usual, rather human made

BLACKOUT – 0x09 R.4: Dependency

This section is about the rather philosophical area of psychological and physical interdependencies which might nonetheless greatly influence your overall success.

For example, if you are used to live a certain lifestyle for a certain amount of years, it is in the human nature to get used to it, accept it as being normal and not further deal w/ daily questions of „(how) can I make this better?“ or „can I do this in a different way“. However, everybody should from time to time hack his way out or into this fixed behavioural disease in order to gain a different perspective on things and not act like a (stupid) follower, being a victim of consume, marketing and (primitive) mainstream media.

In short: Please try to be a (self-)reflective person and support others in doing so. There are many good examples of co-working projects (like the DE/FR arte media station), in which this general attitude develops and in which high quality information, base for reflection and an overall feeling of „doing the right thing“ not only for yourself but also for others (friends, family, even random ppl) will be the fruit of you efforts.

Right now is the time for cooperation, for support and to help people that are in a by their own understanding hopeless and desperate situation.

TO BE CONTINUED...

BLACKOUT – 0x0A: References

These are most references which served as a base for my own research. However, I also had access to some information and comments of a neighbour's friend who is a nutritionist for a short discussion about vitamin levels and amounts in dietary supplements.

R.1: Desinfection

<https://de.wikipedia.org/wiki/Desinfektion>
<https://de.wikipedia.org/wiki/Ethanol>
<https://de.wikipedia.org/wiki/Mykotoxin>
<https://www.welt.de/gesundheit/article147807051/So-krank-macht-uns-versteckter-Schimmel.html>
<https://www.quora.com/Does-soap-kill-bacteria-or-just-clean-off-bacteria-and-viruses-How-does-the-hand-washing-process-really-work>
https://de.wikipedia.org/wiki/Kernseife#Eigenschaften_und_Verwendung

R.2: Nutrition

<https://de.wikipedia.org/wiki/Homocystein>
<https://en.wikipedia.org/wiki/Homocysteine>
<https://de.wikipedia.org/wiki/Fols%C3%A4ure>
<https://www.netdokter.de/ernaehrung/folsaeure/folsaeuremangel/>
https://projekte.uni-hohenheim.de/wwwin140/info/sonstiges/zufuhr/m_25_50.htm

R.3: Hygiene

<https://de.wikipedia.org/wiki/Mykotoxin>
<https://en.wikipedia.org/wiki/Mycotoxin>
<https://www.welt.de/gesundheit/article147807051/So-krank-macht-uns-versteckter-Schimmel.html>
<https://www.lungenaerzte-im-netz.de/krankheiten/covid-19/schutz-vor-ansteckung/>
<https://www.lungenaerzte-im-netz.de/krankheiten/covid-19/adressen-hotlines/>

Epilogue

I hope you could learn s/t from this document to be practically implemented in your own life. I also want to thank [gh0st](#) for being a supportive, good friend and sort of outdoor and trekking mentor over the past 5 years. I learned alot from him, which put me in a position of independently planning and conducting my own expeditions, which is again exactly how it should be. Also, lots of thanks to Marc Elsberg who wrote the very well researched „Blackout“. His book really sort of forced me to write this document b/c I wanted to actively contribute to be better prepared for the current deficits, while at the same time knowing that it is practically no big deal.

BLACKOUT – 0x0B: VOIP Telco

Since quite a while, I have been using a FreeSwitch/FusionPBX based setup for the mapping of voicemail, fax and telco landline numbers, the former two forwarding all content via E-Mail. However, now I feel that it could possible make sense to have a bunch of telcos ready for people that have to organize themselves and their stuff. That is why i just created 5 telcos w/ a maximum of 8 participants each. Below you find the relevant data:

VOIP TELCO #1:	+49 6841 1871137	PIN: 1000	Participants max.:	8
VOIP TELCO #2:	+49 6841 1871137	PIN: 2000	Participants max.:	8
VOIP TELCO #3:	+49 6841 1871137	PIN: 3000	Participants max.:	8
VOIP TELCO #4:	+49 6841 1871137	PIN: 4000	Participants max.:	8
VOIP TELCO #5:	+49 6841 1871137	PIN: 5000	Participants max.:	8

Short Howto

What you have to do to enter a telco, is to dial the number above, then enter the relevant PIN via your phone keyboard (and by using DTMF), and then you will be rerouted into the specific telco room. Now if you make an appointment w/ somebody else, you can tell him „lets meet @ xx:xx at the telco w/ PIN yyyy.“

* It might be important to implement a sort of latency into your communication flow as if you were using a radio. That is b/c there will be short delays b/c different telco providers at different place will be involved and also different headsets / mobile phones might introduce different latencies.

* Talking at the same time e.g. will most probably not really work. So stay calm, say what you wanna say, and ideally announce that you are finished now and ask somebody else to talk.

* Please do not occupy the telco for too long. Be social, let other take the chance to use this infrastructure.

* In special cases, you may write an e-mail to info@nwsec.de and I can set a very specific PIN that nobody besides you and your communication partner knows.