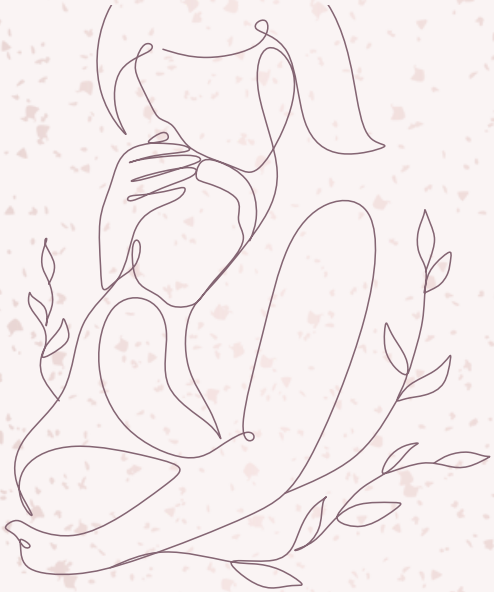
Educational and Clinical Guide for
Health Professionals and the Public

Essential Oil Resource Pack for Preventing and Combating Antimicrobial Resistance



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Background

This work was developed as a practical tool to support the Impact Project I carried out together with Céline Barthes and Chaitrali Ketkale, as the concluding component of the Sustainability program we followed at the Massachusetts Institute of Technology (MIT).
The objective is twofold: – To translate scientific research on essential oils and natural prevention strategies into practical, educational tools; – To test and refine these tools within a pilot group, assessing their relevance, feasibility, and real-world impact on reducing antimicrobial resistance. This brochure is an integral part of that process. It as been used during the pilot testing phase, then improved before broader dissemination. It serves both as a reference document and as a participatory experimentation tool.

Pilot group's composition, level of expertise, criteria of confidence using essential oils for infection prevention

Following a survey on our pilot group, we are now able to understand its content, thanks to the survey key findings. This survey cross-analyzes participants' level of essential oil use with the criteria they believe would make them feel confident using essential oils for infection prevention. The primary focus is on understanding what factors would increase users' trust in essential oils as a viable option for health and wellness.

How to Use This Pack

This guide is divided into five sections:

1. Understanding Antimicrobial Resistance
2. Prevention with Essential Oils
3. Infection Management with Essential Oils
4. Safety & Continuing Education Each section includes foundational knowledge, practical guidance, and suggested applications.

My advice for use is, of course, to read everything and note down the habits to adopt and to abandon.

Obtain the necessary equipment for the various procedures and practice using them (see the “resources” at the end of the brochure)

Prepare in advance the products you are likely to need most, based on your known weaknesses.

Then, above all, print and keep handy the formulas and recipes indicated for replacing chemical products.

⚠️ Important note: This brochure is primarily a tool for prevention and rapid action. In cases of established infections or non-healing wounds, professional intervention is required. I make myself available to assist with such complex cases, in collaboration with your physician when necessary.

Part 1

Understanding Antimicrobial Resistance

Antimicrobial resistance (AMR) is one of the most pressing global health threats of the 21st century. While the overuse of antibiotics in medicine and agriculture continues to accelerate resistance, preventive and integrative approaches are often overlooked. This resource pack brings together current research, best practices, and practical protocols to equip clinicians, educators, and families with science-based tools for prevention and care.

• What are multidrug-resistant bacteria?
Definitions, causes, and key infections Multidrug-resistant bacteria (MDR) are pathogens that have acquired the ability to resist treatment with multiple classes of antibiotics. This resistance can arise through genetic mutations or by acquiring resistance genes such as MCR-1, a gene identified in 2015 in China that renders bacteria resistant to colistin—an antibiotic of last resort. Since then, MCR-1 has been found in at least 19 countries and in bacteria isolated from humans, animals, and food products. The use of antibiotics in livestock for growth promotion and infection prevention has significantly contributed to the spread of resistance genes. Once bacteria are exposed to antibiotics, they evolve.

Overuse in both agriculture and medicine accelerates the mutation process, enabling the bacteria to evade treatment. International travel, poor sanitary conditions, and weak antibiotic regulations in certain countries have further facilitated the global spread of MDR pathogens.

Key infections caused by multidrug-resistant organisms include:

- Multi-resistant tuberculosis (MDR-TB)
- Drug-resistant pneumonia
- Urinary tract infections (UTI) from resistant E. coli strains
- Skin and wound infections that no longer respond to first-line antibiotics

Each year, more than 700,000 people die due to drug-resistant infections globally, a number projected to rise to 10 million annually by 2050 if no new solutions are found.

The public health impact of AMR

One of the most overlooked aspects of antimicrobial resistance is the widespread unawareness of the problem. Most individuals, even those directly impacted, are unaware that they have been infected with resistant bacteria. Patients often undergo months of antibiotic treatment without ever questioning its effectiveness or discussing the issue with their healthcare provider. This lack of awareness allows outdated and unsustainable medical practices to persist. Many healthcare professionals continue to downplay or ignore the growing threat of AMR, avoiding difficult conversations and perpetuating habits that undermine long-term public health.

Furthermore, hospitals and clinics—places meant to heal—are increasingly becoming high-risk environments due to the prevalence of nosocomial (hospital acquired) infections.

These infections are often caused by resistant strains, and without adequate awareness, patients and providers miss opportunities to address the root cause. If patients remain uninformed, they do not question their care. And if they do not question, practitioners are not pressured to change. Raising awareness is not just about education—it's about empowerment and systemic change.

The role of the microbiome in resistance prevention.
Bacteria are not just threats to be eliminated—they are essential partners in maintaining our health. Our immunity depends on a rich and balanced microbiome, especially in the gut, where trillions of beneficial bacteria form the foundation of our immune defenses.
This bacterial capital must be protected, not wiped out by repeated antibiotic exposure.
A 2021 study published in Frontiers in Cellular and Infection Microbiology and a 2018 study in Nature both confirmed that even women with no urinary symptoms can host diverse bacterial communities in the bladder, including potentially pathogenic or persistent species. These bacteria often coexist with fungi (like Candida) and viruses (such as herpes viruses), and this microbial balance—when disrupted—can lead to recurring infections.
Traditional treatment typically involves broad-spectrum antibiotics prescribed based on symptoms rather than accurate testing. In most cases, only E. coli is tested for, and if a woman continues to suffer, successive courses of antibiotics often follow.

This repeated exposure erodes the urobiome, weakens immune defenses, and contributes to AMR.
Moreover, urine samples from women with UTIs have shown a wide array of bacterial, viral, and fungal strains—highlighting the complexity of these infections. Not all symptoms are caused by the same pathogens, and each person's microbiome may respond differently. This reinforces the need for more nuanced, microbiome-conscious approaches.

Essential oils as anti-AMR tool

Essential oils, thanks to their antibacterial, antifungal, and antiviral properties, stand out for their ability to act on multiple targets simultaneously. Indeed, their molecular complexity greatly limits the risk of microbial resistance—unlike synthetic antibiotics—while preserving the integrity of the human microbiome.
By protecting the gut, mouth, skin, bladder, and vaginal bacterial integrity, essential oils give us the means to reduce infection recurrence and prevent further resistance development.

How essential oils act: quorum sensing inhibition, biofilm disruption, immune modulation

Essential oils offer a complex, multi-targeted mechanism of action that makes them highly valuable in the fight against resistant microbes. They do not work like conventional antibiotics that aim to kill pathogens directly, often giving bacteria a chance to evolve resistance through mutation.

Instead, essential oils ...

- Disrupt biofilms (the protective shields bacteria build),
- Inhibit quorum sensing (the microbial "communication" system that regulates virulence),
- And modulate immune response—supporting the body's defense without overstimulating it.

Unlike synthetic drugs, bacteria cannot easily mutate in response to essential oils. Scientific observations confirm that mutations leading to resistance are primarily a reaction to synthetic chemicals, not to complex natural substances with dynamic molecular synergy.
This means that resistance to a high-quality, unadulterated essential oil—especially when used in appropriate dilutions and combinations—is extremely unlikely. Furthermore, essential oils are capable of preserving the integrity of the human microbiome.
This unique capacity, known as immunomodulation, allows essential oils to support beneficial bacteria while inhibiting pathogenic strains.
In this way, they can act as selective antimicrobials, reducing infection risk without compromising microbial diversity or long-term immunity.
As Professor Valerie Edwards-Jones, emeritus professor of medical microbiology at Manchester Metropolitan University, explains: “There are essential oils against which nothing can resist: tea tree (Melaleuca alternifolia) and spike lavender (Lavandula latifolia).”

Tea tree, for example—widespread and easy to find—is: antibacterial, antifungal, antiviral, anti-inflammatory, and analgesic. It acts by perforating microbial cell membranes, causing potassium leakage and impairing glucose respiration in pathogens like Staphylococcus aureus, E. coli, and Candida albicans.

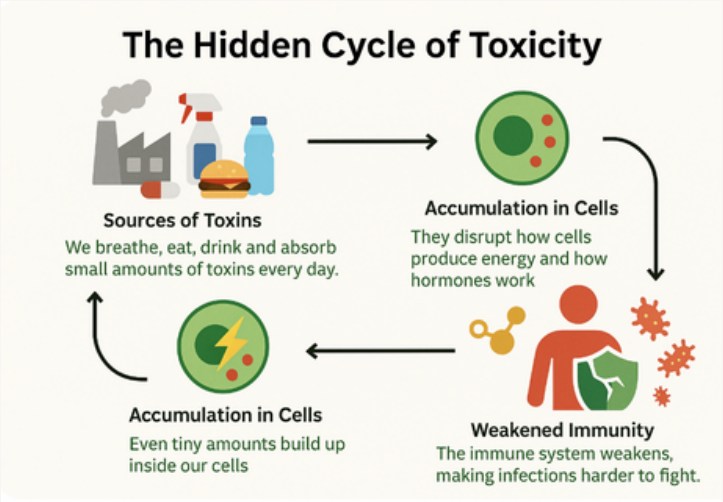
Part 2

Prevention with Essential Oils and plants

Everything we're going to talk about here won't be entirely useful if we consume toxic and contaminating products, highly processed foods, unfiltered water, and if we use intoxicating hygiene and household products.
What we eat matters. Prevention goes beyond therapeutic use.
Recent research on plant-derived exosomes—tiny biological vesicles found in fresh plants such as ginger, carrot, and grapefruit—shows that a diet rich in living, fresh plant matter directly supports immunity. These nanoparticles, which survive digestion, can influence intestinal immune cells and reduce inflammation. Incorporating a wide variety of fresh, living plants into the daily diet provides the benefits of this “cross-kingdom communication” and strengthens the body’s resilience against infections. Combined with the targeted and judicious use of essential oils, this preventive model helps reduce toxic load and chronic stress— two factors that weaken natural defenses and increase susceptibility to recurrent infections.

Toxicity matters for prevention

When trying to prevent bacterial multi-resistance, toxicity must be considered. It is crucial to break the vicious cycle of internal toxicity. When we talk about “toxicity,” it does not only mean obvious poisons or dangerous chemicals. In everyday life, we are constantly exposed to small amounts of substances: those we breathe in (pollution, fumes, cleaning products), those we drink (residues in water), those we eat (additives, pesticides, processed foods), and those we absorb through medications.
Even if these substances are present only in trace amounts, they gradually accumulate in our cells. Over time, they disrupt how cells function, how they produce energy, and how they regenerate. Many of these toxins are also endocrine disruptors, meaning they interfere with our hormones. This creates deep changes in our bodies that weaken the immune system and make us more vulnerable to infections.



Breaking this cycle of hidden, everyday toxicity is essential if we want to reduce bacterial resistance and protect our long-term health.
If we continue to rely on conventional medications without alternatives, we contribute to a buildup of toxins in our bodies, which gradually weakens our immune system and creates a breeding ground for chronic diseases.

Emotional Toxicity
When the gut is out of balance, it can trigger sadness, anxiety, and stress – and that weakens immunity.

Too Much Acidity
An "acidic" body is likee bad soil where infections grow more easily.

Heavy Metals
Hidden metals (from food, water, pollution) get stuck in our tissues and block our cells from working well

Candida Overgrowth
Yeast overgrowth (Candida) feeds infections and makes them harder to control

Stress Overload
Constant stress keeps our body on "red alert," using up energy and lowering defenses

Poor Sleep = Poor Defense
Without good rest, the body cannot repair, recharge, or protect against germs

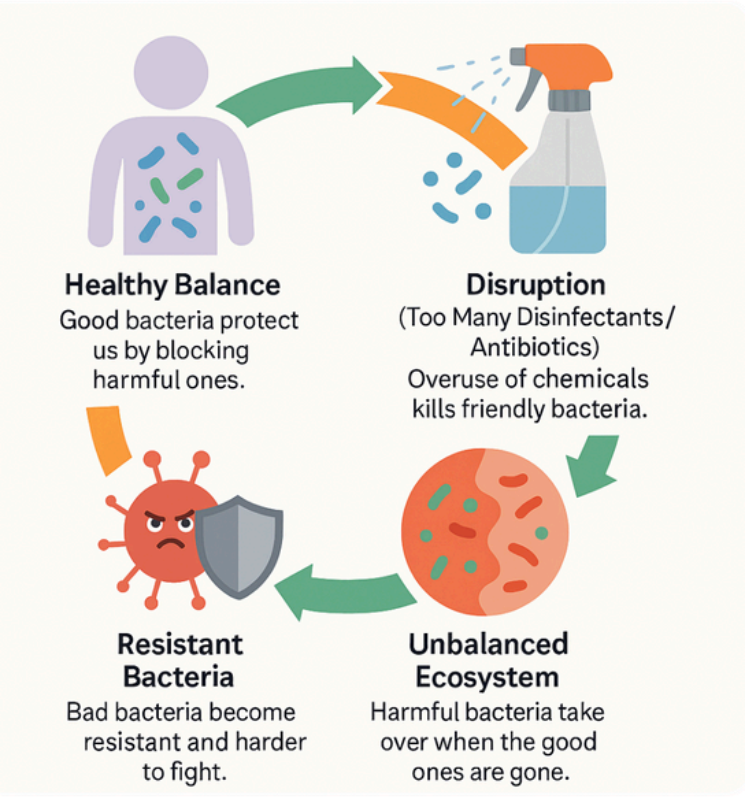
Negative Perceptions
Seeing ourselves or the world in a negative way keeps the stress cycle alive, draining our vitality

Combating bacterial multi-resistance therefore requires breaking this toxic cycle.
This means reviewing our medication and chemical consumption habits and returning to more natural and balancing practices, such as the use of essential oils, a healthy diet, and a lifestyle that is more respectful of our bodies and our environment. Freeing ourselves from this toxicity not only restores the balance of our microbiome but also strengthens our immune system and restores our ability to prevent infections, while preserving our physical, emotional, and energetic well-being. This is how we can truly combat bacterial multi-resistance, by restoring a sustainable balance in our bodies and our environment.

Hygiene & Disinfection

This is a very good place to rethink, because what we see around us in any public place is part of what creates multi resistance.
Indeed, the excessive use of chemical disinfectants, such as hand sanitizers or products containing powerful substances, contributes to the development of microbial resistance. When these products are used too systematically, they eliminate not only pathogenic bacteria, but also the beneficial bacteria that are part of our protective microbiome.

When "friendly" bacteria are eradicated, the bacterial ecosystem becomes unbalanced, paving the way for resistant pathogenic bacteria, which survive despite the use of disinfectants and become increasingly difficult to treat.
This phenomenon creates a vicious cycle where the use of disinfectants promotes the emergence of new strains of resistant bacteria, compromising the effectiveness of traditional antibiotic treatments.



Traditional disinfection approaches, based on the total elimination of microorganisms, ignore this fundamental principle. Conversely, an aromatic approach supports this balance while exerting a targeted and gentle action on pathogens, without affecting the microbiome.

The risks of toxins and chemicals inhalation

Another key argument against chemical disinfectants is the toxic impact they can have on our bodies. These products contain harsh substances such as alcohol, chlorine, or other synthetic antibacterial agents that can penetrate our skin and spread throughout our bodies. Long-term exposure to these chemicals can have devastating health side effects, including hormonal disruption, neurological problems, and respiratory issues.

The chemicals used in hand sanitizers and other disinfectants are often neurotoxic and can affect brain cell function, leading to cognitive impairment, concentration problems, and even mood swings. These effects are particularly problematic in the long term, as continued exposure to these toxins can lead to cumulative effects that are difficult to detect until they become severe.
In comparison, essential oils offer a natural, non-toxic approach to fighting infections.

Some essential oils, such as tea tree and lavender are not expensive, easy to find and have powerful antibacterial and antiviral properties. They act in a more selective and less aggressive manner, helping to maintain microbiome balance while preventing the proliferation of pathogenic germs. Additionally, essential oils are often suitable for regular use in daily hygiene practices, without exposing the body to long-term toxic risks.

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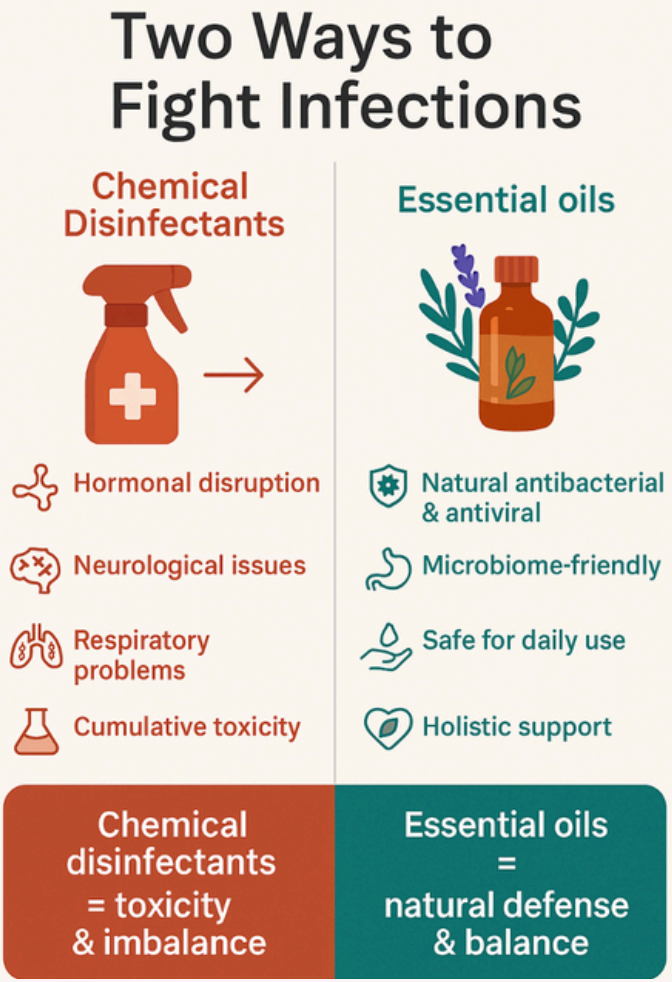


Natural alternatives for hand hygiene and surface cleaning

Bathroom Spray Disinfectant
For a 1 liter glass spray bottle:
• 500 ml water
• 2 tbsp baking soda
• 2 tbsp natural liquid soap
• 20 drops sweet orange EO
• 15 drops tea tree EO
• 15 drops bergamot EO
Cleans, disinfects, uplifts mood, reduces stress, and boosts immunity.

Kitchen Surface Cleaner
If granite counters: use vodka.
Otherwise, white vinegar is fine.
• 250 ml vodka or vinegar
• 250 ml water
• 10 drops orange EO, 10 drops bergamot EO, 10 drops tea tree EO
Spray on surfaces and wipe with a paper towel. Cleans and purifies while uplifting mental and emotional well-being.
Note : if you already have essential oils, these products are a very good way of using your essential oils when they are expired or not as chemically perfect.

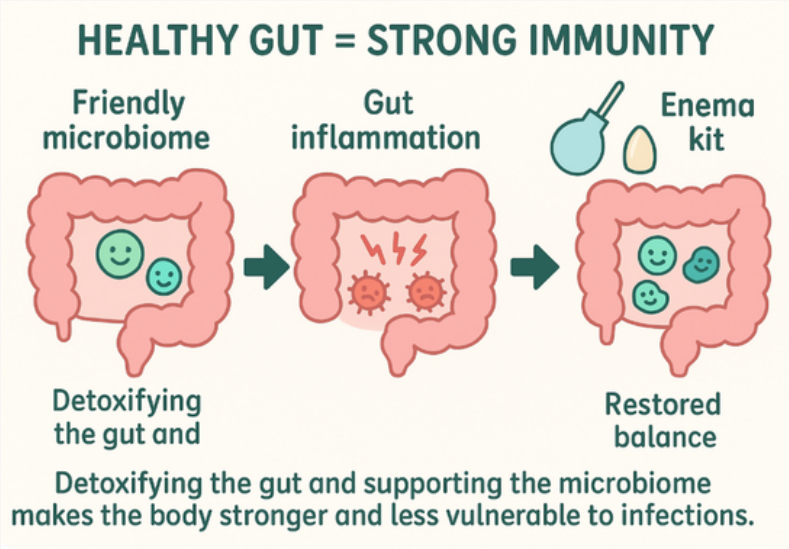
Aromatic hand anti-bacterial gel

No alcohol here, but coconut oil and aloe vera gel.
It is essential to distinguish the difference between an antibacterial and an
antiseptic. Antibacterials are agents that kill or inhibit the growth of specific
bacteria, while having less impact on other beneficial or harmless microorganisms.
The coconut oil and aloe vera gel blend works specifically against bacteria while respecting the natural balance of the skin and its protective microorganisms.
Coconut oil contains lauric acid, a fatty acid known for its powerful antibacterial properties. This acid acts on the membranes of bacteria, disrupting their function and preventing them from multiplying. This makes coconut oil an effective antibacterial against a wide range of bacteria, including those responsible for skin infections, while being gentle on the good bacteria needed for skin health.
Aloe vera gel, on the other hand, is known for its soothing and moisturizing properties, but it also has moderate antibacterial properties. It helps maintain healthy skin and promotes healing, creating a favorable environment for tissue repair while limiting bacterial growth.

Here is an easy recipe
•50 ml cup aloe vera gel mixed with 50 ml coconut oil
•50 drops of essential oils (tea tree, lavender, geranium)
Mix with a little whisk and pour the mixture into a clean squeezable container

Infection management with essential oils

I would like to share now my therapeutic approach.
But first, let me remind you of something essential: healing can only begin when the body is freed from the toxins that weakened it. As long as toxins remain, they compromise immunity, leaving our cells vulnerable. Only when these toxins are cleared, and the cells are replenished with the right nutrients, can true recovery take place.
Prevention and treatment both depend on protecting and restoring the microbiome — the vast community of microorganisms living in and on our body. A healthy microbiome is our first line of defense, but it is easily disrupted by colon inflammation and weakened intestinal flora.
While I won't go into a full lecture on intestinal hygiene here, I want to point out an accessible and effective tool: the intestinal enema kit. This practice, well described in Intestinal Irrigation by Alcinous B. Jamison, offers a natural way to restore balance in the colon. I mention it here because suppositories are central to my approach, and simple enemas are a powerful complement, helping to detoxify the gut and reinforce the healing process.



How the Intestinal Enema Works

The method I recommend is very simple: it uses only water in the colon to stimulate natural movement (peristalsis) and help the body evacuate waste.

It is not about absorbing anything into the colon. Think of it like rinsing your mouth with water — safe, gentle, and cleansing.

- What kind of water? Just plain tap water, ideally lukewarm (comfortable temperature for the body). Nothing else is required.
- No risk of harming the flora or mucosa: the water simply triggers contractions that help release what the body no longer needs.

The setup

Water is placed in a small bag hung on a hook (for example, behind the bathroom door). The bag is connected to a soft tube with a small nozzle. A clamp on the tube lets you control the flow.

The process

Standing or kneeling on a towel near the toilet, the nozzle is gently inserted into the rectum. Then, you release the water. Some people take in the whole bag, others feel contractions after just a few seconds — both are perfectly fine.

- **Elimination**: when the urge comes, you simply sit on the toilet and release the water. It can be quick (less than a minute) or longer if more water is used.

- **Flexibility**: you can repeat the process with small amounts of water 2–3 times if needed. People with chronic constipation may need several rounds at first, as the water must soften the matter stuck along the colon wall before it can be evacuated.

In short: it's a natural, safe, and effective way to support colon cleansing, especially as a complement to suppository use.

Detoxification Symptoms vs. Infection Symptoms

When using essential oils, the body's natural elimination pathways (emunctories — intestines, lungs, skin, kidneys) are stimulated. This can cause detoxification symptoms that may resemble infection, and you do not want to misunderstand it. The difference is important to understand.

Common detoxification symptoms may include:

- Mild fever or temporary chills
- Increased mucus or phlegm
- Loose stools or mild diarrhea
- Temporary fatigue
- Headache or skin eruptions (pimples, mild rashes)

These are not signs of a worsening infection, but rather that the body is mobilizing and expelling toxins.
One way to support detox safely is by using an intestinal enema: the faster toxins are eliminated "from below," the less the body needs to trigger stronger responses such as fever, coughing, or diarrhea. Using the enema "in doubt", allows you to avoid un-necessary medicinal action of relief and is risk free.

Detoxification vs. Infection

Fever +

Phlegm

Loose Stools

Not always infection

Often it means:

Your body is eliminating toxins

Enema

Faster elimination, fewer uncomfortable symptoms

Why Suppositories?

Suppositories are not only useful in acute infections — they can also be used preventively to support detoxification and immunity.
The principle is the same as with intestinal enemas: when toxins and pathogens accumulate, the body signals distress through different symptoms. Instead of waiting for the infection to worsen, suppositories help the body eliminate toxins faster and strengthen its natural defenses.

When to consider using suppositories:

- Skin eruptions (acne, eczema flare, unexplained rashes)
- Food poisoning or digestive upset
- Gastroenteritis (vomiting, diarrhea)
- Urinary tract infections (burning, urgency, recurrent cystitis)
- Respiratory infections (cough, cold, pneumonia, sore throat, bronchitis)
- Abscesses or infected wounds (slow to close, recurrent inflammation)

Important to note:

- The formulations and doses presented here are gentle yet effective. This means they can be safely used even in case of doubt, without waiting for an infection to fully develop.
- Once started, suppositories should ideally be used regularly for two weeks to ensure proper detoxification and healing support.

For best results, combine this protocol with an intestinal enema every two days, to accelerate toxin elimination and reduce discomfort.

In short: suppositories are a safe, preventive, and efficient tool that not only fight infections but also help protect your body before infections become severe.

How suppositories affect the body

Suppositories play a strategic role in purification because they act directly on the colon and indirectly on the lungs. Administered rectally, they bypass the risks of oral absorption and deliver essential oils straight to the colon, where they:

- eliminate toxins,
- rebalance intestinal flora,
- and reduce inflammation.

From there, the oils diffuse throughout the digestive tract, including the bladder, supporting the detoxification of internal organs. This approach reflects the principles of Traditional Chinese Medicine (TCM), which emphasizes the interconnectedness of organs and the need to treat the body as a whole.

Diffusion to the lungs

Once absorbed into the bloodstream, essential oils reach the lungs via the pulmonary arteries and bronchi. There, they help purify and disinfect the respiratory tract, reducing infections, inflammation, and congestion. By supporting freer breathing and toxin elimination through the lungs, suppositories stimulate the immune system and strengthen the body's natural defenses.

This holistic method addresses both digestive and respiratory systems simultaneously, targeting the root causes of imbalance for comprehensive healing.

About resistant bacteria

The most common multi-drug-resistant bacterial infections are often linked to bacteria that, after prolonged exposure to antibiotics, become able to resist several conventional treatments.
Among the most common are:

Methicillin-resistant Staphylococcus aureus (MRSA), which primarily affects the skin, soft tissues, and sometimes bones. This infection can manifest as purulent wounds, abscesses, or deep infections such as bone infections (osteomyelitis).(Cleveland Clinic, 2022)

Antibiotic-resistant Escherichia coli (E. coli), responsible for many urinary tract infections (cystitis, pyelonephritis), as well as gastroenteritis and serious abdominal infections, often linked to food poisoning. (StatPearls, 2022)

Pseudomonas aeruginosa, common in the lungs, particularly in people with cystic fibrosis, but also present in skin and urinary tract infections. (Cleveland Clinic, 2022)

Vancomycin-resistant Enterococcus faecium, which primarily affects the urinary tract and gastrointestinal system, can also cause serious nosocomial infections in surgical scars or prostheses.(StatPearls, 2022)

These infections particularly affect sensitive areas of the body, such as the abdomen (when they affect the digestive tract and intestines), the urinary organs, and the respiratory tract. The abdomen is a breeding ground for infection and chronic inflammation, particularly due to its central role in nutrient absorption and toxin management. Therefore, in aromatherapy, targeted action on this area,
particularly using suppositories and olfaction, allows for more direct treatment of these infections and an effective approach to the main source of immune weakness. This approach not only reduces the risks associated with systemic absorption through the mouth but also promotes more effective localized action on the intestinal flora and affected systems.

How to make suppositories

You will find suppositories kit on line as well as regular cooking coconut oil.
Coconut oil is a natural antibacterial and anti-fungal, which is more useful than cocoa butter. You'll also need an empty jar (I use jam jars) to keep your suppositories ready to use.

Do not wait until you need them! Always have some ready to use so you feel reassured, you have what you need available, anytime.

They are safe in your refrigerator or freezer.
Your coconut oil must be soft enough to be stirred with your essential oils. It must not be hot. So if you need to soften it, place it in a hot water bath until it is soft enough to stir the oils in.

Suppository formulas

Here, **we'll use a very limited selection of essential oils that are very easy to find and safe to use.** Like with any non toxic, non drug related treatment, its effectiveness depends on non toxic, non drug related habits. Even though I cannot give here all the advices I would to one of my patient, you'll still find a few.

Here are your antibacterian essential oils
Melaleuca laternifolia (tea tree), lavendula latifolia (spike lavender), matricaria chamomila (German chamomile), juniperus communis (juniper berry).

Broad-spectrum antibacterial formula (for adults and children)

- When you need to act quick, and you are not sure of what happens, use these. This is risk free and starts a process of anti-bacterial, anti-viral, anti-fungal and immuno-modulating action. One suppository at night for 7 days. One water enema every two days.

For adults: 100 ml coconut oil + 100 drops tea tree essential oil.
For children over 3 years old: 100 ml coconut oil + 50 drops tea tree essential
oil.
One suppository morning and night for at least 7 days.
One water enema every two days.

- **Antibacterial formula for Staphylococcus aureus (MRSA)**

For adults: 100 ml coconut oil + 50 drops of tea tree oil + 25 drops of spike
lavender + 25 drops of German chamomile.
For children over 3 years: 100 ml coconut oil + 25 drops of tea tree oil + 12 drops
of spike lavender + 12 drops of German chamomile.
One suppository morning and night for at least 7 days.
One water enema every two days.

- **Antibacterial formula for urinary tract infections (E. coli)**

For adults: 100 ml coconut oil + 50 drops of tea tree EO + 25 drops of German chamomile EO + 25 drops of juniper berry EO.

For children over 3 years: 100 ml coconut oil + 25 drops of tea tree EO + 12 drops
of German chamomile EO + 12 drops of juniper berry EO

One suppository morning and night for at least 7 days. One water enema every two days.

Regarding urinary tract infections, they are most often fungal, therefore, associated with an overpopulation of candida albicans. It is crucial here to be consistent in not consuming what makes candida proliferate: sugar, dairy products, gluten and all derivatives: fruits, fruit juices, candy, ice cream, cookies, cakes, bread, pasta, sodas, cheese and anything industrial and processed. Orange
juice in particular maintains urinary tract infections.

Here is an antifungal formula to massage on the stomach to support the antibacterial treatment: in a teaspoon of coconut oil (5 ml), add 3 drops of tea tree EO and 2 drops of German chamomile EO. Massage on the lower part of the belly as long as you feel the need of relief.

To help with the burn and itchiness: Soak in a warm bath with baking soda added. A nice cupful in a normal-sized bathtub or just a basin.

Safety principles

1. An essential oil should only be contained in an opaque glass bottle, equipped with a dropper, and fitted with a secure closure, protected from light, and stored away from heat sources and sunlight. Heat and oxygen alter the chemical integrity of an essential oil, which is noticeable visually and to the nose: the viscosity and color of the essential oil change, and so does its aroma.

2. The origin of the botanical source, the botanical name, and possibly the extraction method and bottling date must be indicated. For example: True lavender, origin France, CO2, lavandula angustifolia, May 2012.

3. Be aware that there is no way to verify that an oil is actually completely natural, undiluted, and not mixed with synthetic oils.

4. Therefore, do not purchase from a laboratory that specializes in aromatic raw materials for the cosmetics and perfume industries, which also offers particularly low prices and is unable to supply whole, authentic products. Be wary of prices that are too low.

When it comes to essential oils, you pay for quality. (See more about sources here: https://www.clubequilibrenaturel.com/resources-essential-oil-resource-pack

5. Learn to use your nose and eyes: there's really no other way to go about it; you have to learn to distinguish a living oil from a synthetic one.
A living et fresh essential oil moves! It must be clear, lively, powerful, and spread through our nose, our head, our throat, or all at once!
If what you smell stagnates, seems dull, heavy, colorless, or lacking light, chances are it's synthetic and/or too old.

The essential oils used in this brochure are not difficult to find and are not the most expensive. Still, they have to be from a reliable source. (please see sources)

Some basic information about the essential oils used in this brochure

Tea tree (melaleuca alternifolia)

Australian oil obtained by distillation, rich in monoterpenes and alcohol. Can be applied as is.
Major anti-infectious, antipuritic, broad-spectrum antibacterial, antifungal (candida), immuno-balancing, anti-inflammatory, antiseptic, healing, expectorant, insecticide.
Indicated for skin care in cases of: acne, abscesses, oily skin, irritations, breakouts, warts, diabetic gangrene, protection against radiation burns (with rose and lavender).
Indicated to support immunity in cases of: streptococcal infections, viral infections, chickenpox. Chronic candidiasis, vaginal yeast infection, fungal cystitis, pruritus, and reproductive tract infections.

German Chamomile (matricaria chamomila)

Blue oil from Europe or Egypt obtained by distillation, contains chamazulene, rich in sesquiterpenes and oxides.
Anti-inflammatory, antifungal, bactericidal, decongestant, hepatic, sedative, vermifuge, analgesic, antispasmodic, healing, febrifuge, and digestive tonic.
Indicated for skin relief in cases of: severe acne, rosacea, cuts, dermatitis, eczema, inflammation, teething, diabetic ulcers, skin infections**, pruritus, and candidiasis.**
Indicated for pain relief in cases of: arthritis, inflamed joints, neuralgia, sprains, rheumatism (with yarrow and immortelle), and osteoarthritis.

Spike Lavender (lavandula latifolia)

European oil obtained by distillation, rich in 1.8-cineole terpene oxide
Mucolytic, anti-cararrhal, anti-inflammatory, analgesic, healing, antibacterial (Staphylococcus aureus), strongly antiviral, antifungal, and cardiotonic.
Indicated to support the body's defenses in cases of: colds, flu, tonsillitis, productive cough, serous otitis media, and chronic bronchitis.
Indicated to relieve pain in cases of: shock, headaches, migraines, second-degree, burns, aches and pains, menstrual pain, and indigestion.
Use at the end of pregnancy to speed up labor.
A complete pharmacy in one bottle.
This essential oil cannot be substituted with lavandula angustifolia, or true lavender.

Juniper berry (juniperus communis)

Oil from Europe, India, or Croatia, obtained by distillation, rich in terpenes.
Powerful diuretic, urinary antiseptic, anti-infectious, antitoxic, sudorific,
antibacterial, diuretic, cardiac tonic, stimulates energy, excretion through the kidneys, respiration, and digestion.
Indicated to support the urogenital and eliminatory system to relieve:
cystitis, cellulite elimination, detoxification of excess food and alcohol, uric acid accumulation, edema, inflammation, rheumatism, gout.

Continuing education

There are numerous regulatory bodies for aromatherapy education and public education on the use of essential oils.

The National Association for Holistic Aromatherapy (NAHA) is a member-based nonprofit organization dedicated to the holistic integration and education of aromatherapy across various complementary healthcare practices, including self-care and home pharmacy.

NAHA actively promotes and upholds high academic standards in aromatherapy education while advancing professional practice guidelines. It is also committed to raising public awareness and understanding of aromatherapy, ensuring its safe and effective use in daily life.

If you are interested in using essential oils in research, take advantage of the Treats checklist
https://www.arqat.org/the-treats-checklis

For recommended materials and further resources, visit:
https://www.clubequilibrenaturel.com/resources-essential-oil-resource-pack

For questions, feedback, or collaboration:
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ARQAT – Association for Research and Quality in Aromatherapy. https://www.arqat.org/

CDC – Antimicrobial Resistance Programs. https://www.cdc.gov/antimicrobial-resistance/programs/AR-actions-events.html

NAHA – National Association for Holistic Aromatherapy. https://naha.org/

Alliance of International Aromatherapists – Research Academy. https://www.alliance-aromatherapists.org/Research-Academy

Dr. Yvonne Burkart – PhD Toxicologist. https://dryvonneburkart.com/

Cécile Ellert - PhD Quantum Healing with Essential oils. https://www.clubequilibrenaturel.com/media-and-speaking-inquirie