In our practice, we have had a lot of success managing chronic illnesses such as Crohn's, endometriosis, MS, Lyme, and others with a four-fold base protocol that includes changes to sleep patterns, diet, lifestyle, and movement habits, and uses herbs to support their healing. These strategies have been successful in putting many types of chronic illnesses into remission, but they require a certain level of affluence. How can we adapt this successful model to a demographic that may not have sufficient funds to acquire the foods we have found to be beneficial, or the time and safety to sleep as much as they need to? What roles can herbs play as readily-available, low-cost, nutrient-rich supplements to an insufficiently nourishing diet? How can botanical medicines serve to counteract the stresses inherent to life in an underserved community?

the nature of chronic illness

For a cold or the flu, you can often send your client off with your favorite remedies and your job is done. But when you have a client with a chronic illness, the work is more complicated. The constitution of the client becomes a more important part of your herb choice, and the herbs are only part of the story. Chronic illness demands changes in diet and lifestyle, even in the way the client moves through their day.

Acute and chronic illness are very different, and demand different approaches. Acute illnesses are *fast-moving*. The onset of the illness and the body's reaction time are very rapid: usually a person knows what made them sick, and the symptoms are severe enough to motivate a behavior change fairly quickly and drastically – to stop working and go to bed, for example. This quick change often means quickly resolving a constitutional or tissue state imbalance involved in the illness. When that change is neglected, we see acute illness become chronic. UTIs are a good example here: Although people will stay home for a head cold, many people will not stay home and rest for a UTI, which allows the acute illness to take hold in a more serious way, or to heal only partially – only to recur again in a month. This pattern holds across many demographics – the pressure to work through illness or the threat of job loss over sick time can turn a reasonably simple-to-address acute situation into a more serious chronic illness.

Chronic illness develops *slowly*, over time; as a result, healing takes more time. Because it emerged over time, it must be resolved by reversing the situation that allowed it to develop – such as a long-term lack of sleep. Often people don't know what the original trigger was that kicked off the illness, because it came on over a long period of time and wasn't immediately debilitating. The original cause(s) can also be difficult to determine because they are often things that are comfortable to that person – like a "night owl" habit or a particular comfort food that is an allergen – or things that are culturally normative, and therefore considered benign. This also persists across demographics, though of course once discovered, these things are more easily addressed or experimented upon by those with more time and means to do so.

Acute healing reactions are *general*. In acute illness, the body has a set of defenses, and although there is certainly variation from person to person, a fever is, more or less, a fever. Constitution plays a larger role in whether or not a person will be able to make use of all their defenses than in what those defenses actually are, but the defenses themselves are more or less generalized: everyone fevers to fight off a respiratory infection (if their capacity to mount a fever hasn't been compromised).

Healing protocols for chronic illness are *individual* – often people don't recognize what parts of their current behaviors could be contributing or causal factors in their illness. Each person's cancer, diabetes, or MS is different from another's, and each needs a personalized plan of change.

Let's consider an example:

A graduate student who was third born in her family was eating cheaply, sleeping poorly, and had high stress levels – which was a continuation of the pattern she had in college. In the middle of her second year of study, she had a bronchial infection that wouldn't resolve. She stayed home for a day or two, but the bronchial infection lingered for three months. At the end of year, she was diagnosed with chronic fatigue syndrome.

Presented with this case, we might be tempted to ask: what herb can we give this person to give her more energy and allow her to maintain her schedule? The answer is, that's the wrong question. That might be the question she wants to ask, but the answer to this question would push her further out of balance, further into chronic illness. There is a place for "fix the symptoms", but chronic illness isn't generally that place.

The real question is, what in her life got her to this point, and how can she reverse that? What factors in her life combined to create the current state? Foundationally, fundamentally, chronic illness is a result of constitutional imbalance. Some of that you can control, and some of it you can't, but you can always make changes to help correct for it. Members of marginalized communities have a lot more barriers to taking the time and resources to do this kind of resolve-the-cause work, but that doesn't make the process any less important for them. Our role in this work includes creatively finding ways to make this process more accessible.

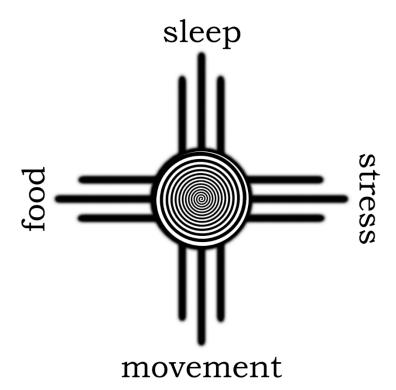
In the case of our grad student, perhaps the ultimate answer is to take a semester off. That may be undesirable to the student, but overall it is reasonably accessible. How would the situation be different with for someone else – a single mother of three who works two low-wage jobs, for example? We could imagine the same disease pattern: a bronchial infection that wouldn't resolve. She managed to find someone to cover her shifts for one day close to

the onset of the acute situation, but she lost the wages she would have had for that time, and couldn't stay home any longer than that. The infection lingers for months, and never fully resolves. By the next winter, she has all of the symptoms of chronic fatigue syndrome, but does not have a diagnosis because she doesn't have time to go to the urgent care clinic. (Not that a diagnosis would matter, since her employers do not offer the benefit of access to short-term disability payments.)

The "right" answer doesn't change – this woman needs a long break to rest. But given that this is completely inaccessible to her, how can we support that rest in this situation? This is the challenge faced every day by members of underserved communities.

the chronic compass

A compass, or a medicine wheel, is a great visual tool for working holistically, working in the round. On this one, we plot four major factors that can contribute to the development – or the resolution – of chronic illness.



Each point of our compass is intertwined with the others, and any effort made on one point will spiral in towards the center.

When we focus on sleep, we teach habits designed to improve a client's ability to relax and rest, so they can fall asleep easily and sleep soundly through the night. That rest gives them more reserve to draw on the next day, so they're less likely to get as tense, and are better able to relax . . .

When we focus on food, we improve the quality of nourishment a person gets, which diminishes cravings and disordered thinking, so it's easier for them to make healthy choices about what to eat next . . .

When we focus on movement, we help a client find comfort with and joy in their physicality. The more they feel at home in their body, the more they take pleasure in what they can do with it, the more they're likely to seek out movement in daily life . . .

At the center of the compass is the person you're working with. What is their personality, what is their constitution – and what does that mean for how you will work with them?

If you're new to working with constitutions, don't worry! These patterns are *visible* and, to a large degree, *familiar* from the way they are embedded in our cultural context, and even our language – you know what a "hothead" looks like, and what kind of health problems he's likely to have. You can see exhausted; you can see pale. So, you can sit down and figure it out in a quiet moment: exhaustion is having no more resources, it's being dried up. Pale comes when people are cold – often also with exhaustion. The skill comes from directing your attention towards observing these patterns, and recognizing that they run more than skin deep.

Keep in mind that a person often feels comfortable in their place of imbalance – for example, a person with a dry constitution may prefer a dry climate, because it's familiar and comfortable, even though they might actually benefit from some added moisture! They may (or may not) also be quite averse to the thing that would bring them back into balance – for example, a dry person may be accustomed to feeling dry, and may dislike the feeling of salve or lotion on their skin, or the texture of demulcent tea. Don't panic! This is where creativity comes in.

When we talk about chronic illness, constitution may be a moving target – we don't just look at the person's "native" constitution from the perspective of therapeutic energetics. We also look at the person in their current state: you might think of this as the macro, whole-body version of tissue state. For example: a reasonably strong person with good reserves, who is generally able to depend on their ability to be heroic in situations that require it, may have spent the last year working two demanding jobs, and find themselves in a place of overall depletion or even chronic fatigue. Now they're unable to call on any reserves, and appear overall to be cold and dry. Even though that's not a permanent part of this person's constitution, in that timespace, it is a

fundamental part of the center. As they begin to move back into a more balanced place, the underlying constitution will become clearer.

Also, at the center of the compass is this person's own center, in its own balance. Moving in towards the center is the impact all these things will have on the person's lifestyle, stress responses, etc – which means, the impact on their chronic illness – which is bound up and dependent upon that changeable current state.

Our compass points are food, movement, sleep, and stress. Addressing each of these alone can effect change in a client's condition; put them all together and radical improvement is almost guaranteed. Let's visit each in turn, always thinking about how these points are influenced by the center, and finding our herbs interweaving between and among them all, in service to the work our client is doing in each direction.

food

The quality of the food you eat determines the quality of your *you*: that's what you're made of. When there are chronic problems we have to look and see – what are your building materials? Immediately, there is disparity here when we think about marginalized communities: the lack of access to good quality food is a factor in chronic illness that cannot be overemphasized.

Foods have their own energetic qualities, just as herbs do – and those may be worth talking about with your client. (For example: are they cold and depleted, and eating salad, ice cream, or cold cereal?) But before we even get to that level, we have to ask questions like: are the things they're eating actually *food?* Are they allergenic? Are they contributing to inflammation and insulin resistance? Are they providing sufficient macro- and micro-nutrients?

More broadly: what foods are appropriate for the person that you're working with? What foods are not appropriate? How are the foods that they're eating, or not eating, contributing to their current state?

Even if we choose to remain agnostic about which Diet™ is best, we can discern some foundational principles: eat whole foods. Eat more vegetables. Avoid processed, packaged food-products. Avoid added sugars. Eat meat from healthy animals, and vegetables from healthy soil. Eat with the seasons. Eat with intent, and gratitude, and enjoyment!

It is important to emphasize that certain common foods are very potent contributors to chronic illness. The biggest of these are gluten and dairy, though additional common allergens (like soy, corn, nightshades) may play a significant role. Although removing these foods is often challenging, it is definitely worth exploring, at least as part of a short term recovery strategy: the

impact that both gluten and dairy play in chronic illness cannot be overemphasized.

It's worth a small tangent on *motivation* here, because changing food habits is difficult. We emphasize first that a person may take our advice in trying a particular elimination or addition, but then they need to *feel* the results in their body – this will be the ultimate motivator. If a person eliminates gluten just on a recommendation but then reintroduces and feels symptoms, that's a far greater and more valid motivation than anything we might say to them. It's also important to recognize that everyone has bad days, and those are the days when dietary goals are most likely to fail – making a plan ahead of time can help a person be very successful! This may be something like carrying food so that when hunger hits, the temptation to get some fast food can be avoided; or never going to a social event without eating beforehand, so that "I thought there would be food I could eat" isn't an excuse to cheat.

It's great to find some "junk food" that satisfies a stress-day craving without crossing the most important dietary lines – this is harm reduction in our food choices. For example, a bowl of organic cocoa snaps cereal may be loaded with sugar, but there's no gluten, dairy, or hydrogenated fat. We can't say that's a healthy option, but on a stressful day, it's far better for a person avoiding gluten and dairy than a pint of Ben & Jerry's cookie dough ice cream. Having these strategies in place ahead of time drastically increases rates of success.

Education can also be a motivator: often our comfort foods are, in fact, foods that we have allergic reactions to, or foods to which we are intolerant (or foods that aren't even food!). Eating foods - or food-like caloric products - that put stress on the system releases endorphins, which give us a feeling of elation or vital response – recognizing this can help us understand why toast is so appealing to someone with IBS, even though the toast is a part of the problem.

Finally, success is a motivator! Whether it's the increased energy from a real breakfast or the pride in having X number of junk-free days in a row, success breeds the energy to continue.

Motivation is also constitutional, and it's a part of all the directions as well – impacting our herbal choices for each person. In the service of developing the willpower and energy required to make changes to diet, you might first want to employ ashwagandha to help restore circadian rhythms of sleep and activity/movement in a sedentary insomniac, or linden to help a tense person relax. You might use creative food choices as motivation for someone who feels "greyed out", combined with tulsi tea.

There's another word besides motivation, which might be conviction, or convince-tion, which is the way in which you deliver the message – and this varies with constitution also. Some respond well to a gung-ho cold-turkey

challenge; others need a hand-holding baby-steps approach; most are somewhere in between. If you feel something in particular needs a higher priority than the client does, you may need to sell your point. Use the person's personality and their own priorities to explain to them how a particular thing (learning to love seaweed, perhaps) is so important. Also, what they do when they get there is different: are they over-achievers? Are they compulsive? Will they guilt themselves? Will they blow it off? Understanding your client's personality can help you make effective suggestions.

These strategies do, however, imply a certain amount of privilege – especially if we're working with populations who don't have any choices about what food is offered to them. However, in whatever situation we're working at, we can work to creatively find a solution that includes as few dietary stressors as possible, and use that instead of a more damaging choice.

Food changes are big changes, and are not easily accommodated in cafeterias or restaurants. Instead, counsel clients to carry their own food with them: a glass jar which once held olives or pasta sauce will work as a food jar to bring home-prepared foods to work, and for food to eat while commuting. Save two jars; use one for lunch, and one for tea or water instead of a soda.

In study after study we see that whoever eats the most vegetables wins – but fresh vegetables are not always easy to come by in underserved areas. If the client is lucky enough to have the space and the leisure to garden, as may be possible in rural areas, that makes the situation somewhat easier – and time spent in the garden is a specific strategy for recovery all on its own! In an urban environment, that's generally not available. Oftentimes, however, community gardens can be made available if there is someone to champion the cause with the city. But there are other methods: farmers' markets in Boston accept SNAP 2-for-1, and towards the end of the market, even better bargains can be made, as farmers don't want to take unsold produce home. If someone in the family (even a responsible child) can be available to go to farmer's market, this is a very effective way to get fresh vegetables at a very low cost. If not, use frozen vegetables. Frozen vegetables are frozen at the time of harvest, and are often a better option nutritionally than fresh vegetables that have been shipped across the country.

Organ meats are tremendously nutrient dense, and although many don't relish the taste or texture, it's important to remember that most cultures still consider organ meats to be an important part of traditional cuisine. Because many of our underserved communities preserve these traditions, do not assume that a suggestion of organ meats will be unwelcome. They're cost-effective, and many people do actually enjoy them. If your clients (or you yourself!) do not relish organ meats, invent recipes to hide them in other foods – beans and rice with a good measure of spices and finely chopped liver is a fantastic way to drastically increase not just protein, but also many essential

nutrients. Decent quality fish can sometimes be found in the frozen section more affordably than fresh. Herring, sardines, and anchovies are also a lower-cost way to get fish into the diet. Fatty meat cuts will provide meat to eat and extra fat to save in a jar for cooking; they are often also less expensive, because of the trendy emphasis on leaner meats. Finally, small independent butchers and fish mongers often have better prices on less desirable cuts, and grocery store butchers and meat farmers at farmer's markets often have coolers of free items, such as bones, organs, and fat for lard, that they have trouble getting rid of because they're not currently fashionable.

Broth made from bones and seaweed is extremely nutrient dense, and bones (or animal feet) are not expensive. Seaweed may seem unfamiliar at first, but it's cost-effective at Asian markets or when purchased in bulk, and when boiled in the soup it doesn't retain the "seaweedy" flavor that folks fear. If you keep some trial size samples on hand, your clients may be more easily convinced – and it's worth it, because the seaweed adds tremendous value in vitamins and minerals. Even if someone doesn't have a kitchen, as long as they have access to electricity, broth can be made in a crockpot – these are often available for \$5 or less at thrift shops. Bones and feet can be fairly easily found in ethnic markets or at farmer's markets.

Fat is particularly critical in resolving issues in the nervous system, whether physiological or emotional. Fats to emphasize include good quality fats from healthy animals, ghee, responsible coconut and palm oil, olive oil, avocados, and good quality butter if milk is tolerated. Often, at the farmer's market or the butcher's counter, good quality pork or beef fat can be purchased inexpensively or even taken for free, and can be added as-is to a meal or rendered into lard, which an older relative or community member may be able and willing to do while younger adults are working. Fats to avoid because they cause inflammation are corn, canola, soy, and "vegetable" oils.

Enlisting older relatives, who may not be working, in the business of food preparation is a very useful strategy – it not only allows fresh food to be prepared where it otherwise may not be (because the adults in a family are working), but it also gives the elder a feeling of purpose and contribution. If we can pair up the elder with school-aged children, we can even increase the effect so that multiple families benefit with fresh meals - and child care and elder activity! Today, working-age adults are acculturated to believe that they have to be responsible for everything: work, the kids, and elder care. Traditionally, however, each of the generations would have contributed, and reviving those traditions, even beyond actual family lines, gives us a very powerful multipurpose tool in community health.

Although generally supplements are not our preferred method, two supplements that are particularly useful in dealing with chronic illness are magnesium and D3. These two are also reasonably cost-effective, especially if D3 can be administered by a primary care provider and covered by insurance, if the person has it. Both play many different roles in healthy functioning of the nervous system. It should be noted that therapeutic levels are considerably and even drastically higher than US RDA and reference levels.

The microbiome has been receiving a lot of attention lately in relation to autoimmune and chronic inflammatory diseases. Probiotic *supplementation* is expensive, but it is quite cost effective to make probiotic *foods*. Especially when using cabbage as a base for fermenting vegetables, both the probiotic effects and the prebiotic effects are in the mix. Although prepared fermented foods can be costly to purchase, they are simple to make when time and space can be made available. This is another place we can engage elders and children in community care, and it can even be done as a neighborhood co-op or CSA, further adding to the self-sufficiency and community health aspect. This is a great use of produce "seconds" which can be purchased very cost-effectively at farmer's markets. Also, although fermented foods may be a forgotten taste for many folks, they may be more willing to try something produced right in the neighborhood by people they know.

Finally, don't forget water! Hydration is important for every body, not only sick ones. Stress, cigarettes, coffee and alcohol are all drying, so this is particularly important for folks who consume these drugs. Consciously consuming more water also naturally causes people to drink less soda, sports drinks, and coffee, and fewer liquid calories helps with weight management, diabetes, and heart disease. Mineral supplements are good to improve water quality, but they are not accessible for everyone; however, marshmallow is very inexpensive, and mallows grow wild all over. A pinch of salt and a pinch of cinnamon powder work for a lower cost source of minerals and mucilage. A squirt of honey or spoon of molasses is also nice for added minerals and getting people off sugary drinks.

Herbs can support our nutritional goals in multiple ways - first and foremost, we can recognize that any kind of food change is difficult and there are a lot of emotions at play. We can use nervines to help manage the emotional struggle that accompanies food changes, whether that's something like linden to help soothe feelings of loss or deprivation, tulsi to help with breaking addictions, or motherwort to assist in building new boundaries. Herbs can play an important role in our ability to digest the food we eat, as well, with strategies ranging from bitter herbs for improving gastric secretions and overall digestion, to carminatives for building digestive fire, to vulneraries such as calendula and plantain for repairing damaged intestinal tissue and the ability to absorb nutrients efficiently.

Here are some specific herbal suggestions targeted to be highly accessible: Marshmallow can be added to any formula to help combat dryness: make the formula in cold infusion overnight, then strain and drink first thing in the morning. Pour boiling water over that same plant marc, and drink the hot infusion throughout the day. The hot infusion can be brewed twice to get 3 quarts of tea from a couple tablespoons of dried plants.

Apple cider vinegar, straight or infused with readily available kitchen herbs, is a digestive tonic for any chronic illness where digestion is involved (which is to say, all of them), as well as for colds in acute and preventative stages. Raw ACV is a source of probiotics, too. These herbs could include rosemary, sage, thyme, parsley, onion, garlic, lemon, etc, all of which can generally be found at neighborhood markets.

Cinnamon is readily accessible at any grocery, market, or bodega. It makes a warming, moistening tea from a hot or cold infusion; it can also be added to food for flavor and to manage blood glucose levels. (If you're adding high doses of cinnamon daily, such as more than 2-3 teaspoons a day, to a medicated diabetic's protocol, it's important to make sure that they are testing their glucose levels regularly.) It's also a gentle circulatory stimulant and diffusive, helpful for headaches and stagnant conditions. Turmeric is another good, multifactorial herb that is very readily available, whole or powdered.

Working with powdered herbs in general is a good strategy. They are very straightforward to add to food, and provide the full range of constituents, making them more cost-effective. Adding a spoonful or two of nettle leaf powder to any dish greatly increases the nutritional value of the meal. It goes well with eggs and meat, but is a particularly helpful nutritional boost in rice, lentils, bean and chickpea dishes, and soups. Fennel seed and garlic are also good to add to grain, seed, and legume dishes to aid digestion and assimilation.

Milk thistle seed is one of the lowest-cost and most broadly appropriate herbs we know, for many kinds of underserved persons. Environmental stressors are a major detriment to the liver. Getting whole seeds and eating them, powdering them and putting in food, or making capsules yourself are the most cost-effective ways to take milk thistle. A 120-day supply of homemade capsules works out to about \$8, at two capsules taken three times a day.

Extremely useful herbs don't have to be esoteric or rare, and they definitely don't have to be expensive. Garlic, onion, turmeric, sage, parsley, cilantro, fennel seed, ginger, cayenne, cinnamon, rosemary, thyme, molasses, honey, apple cider vinegar, salt, and black pepper are all indispensible, can be easily found in corner markets even in food deserts, and can all be purchased on SNAP.

stress

Everyone's stress is the same: we all experience the same physiological effects of the stress-response hormones cortisol and adrenaline. These hormones act to make resources available to the large muscles and to focus the attention in a narrow sphere, so that the individual moves into an alert & aware state of consciousness, prepared to progress into fight-or-flight. To make this possible, though, a number of other physiological functions are put on hold or impaired: immune function is disrupted, resources are diverted away from the digestive and core organs to the periphery, blood pressure and blood sugar are elevated.

Under constant exposure to stressful conditions, remaining continually under the influence of the stress response, awareness becomes anxiety. Focus becomes tunnel vision. The diversion of resources away from fundamental health-sustaining functions results in illness and disease: cardiac, digestive, immune, endocrine, nervous, and psychological/emotional health all suffer.

Everyone's stress is different: each person's most potent stressors will be individual. Ask where they identify their own biggest current stressors. Many people in our society endure treatment from their employers, relatives, or partners which is abusive and traumatizing, but have come to see it as normal: exposure to stressful circumstances impairs our ability to recognize them. Helping someone to do this may be a part of your work as their herbalist.

Adrenaline and cortisol are the only mechanism we have for dealing with stress. In many cases, we can't choose to *not react* (though we can train ourselves to react less strongly), and we can't choose to react with some different physiological mechanism: adrenaline and cortisol are always involved – which means their impact on our bodies is always involved.

The *hippocampus* is the part of the brain where, among other things, we process short term memories into long term memories – in other words, the hippocampus is where we "get over it" – whatever stressful or unpleasant thing "it" is. It follows that the healthier the hippocampus, the less difficult it will be to "get over it". Repeatedly, we see that prolonged exposure to cortisol measurably damages the hippocampus – which means that a person who has been chronically exposed to high cortisol levels will have a more difficult time recovering from trauma than a person who has not had chronic high stress levels. It's worth noting that there is a generational effect here as well: if a pregnant mother's body is in a high stress environment, the developing baby is pre-exposed to a high cortisol state during development. This has very important and far-reaching implications. Research into "genetic memory" and the epigenetic impacts of a mother's stressful living conditions on the health of her children is ongoing to investigate these connections, and some very interesting results have already been published.

Some specific strategies for reducing stress, and creatively applying them



- time in nature "Forest bathing" has been shown to reduce the levels of stress hormones and to reduce markers of inflammation in the body. Sunlight is also therapeutic, even beyond the vitamin D. Eat lunch outside whenever possible, and walk outside during the day as much as physical stamina and schedule allows. Time in nature doesn't have to mean driving to the mountains: any park will do, or even a single tree or bit of green. Your client may be able to shift their commute to include a stop at a favorite park. This can be particularly useful for families taking a bit of time together to walk outside builds connections not just to nature but to family, and can be very helpful for promoting healthier relationships.
- finding joy Finding something funny and laughing at it is immediately rejuvenating, as are loving touch and relaxed play. For a client with access to the internet, you can get funny for free on Pandora's comedy channels, but consider community laughs as well: joke telling parties or an open mike for funny stories provides not only something for folks to laugh at, but a cross-generational way for people to relate to one another. Such an event doesn't need to cost anything, and making it a recurring event means that people will start focusing through the week or month on finding new jokes or new funny stories to bring to the party which represents a shift in perception of the world around us!
- bathe Bathing is a traditional activity that is not widely practiced anymore, but both hot and cold water baths, or alternated hot and cold, can be soothing and relieving for many conditions. In the absence of traditional community baths, a bath at home, or even just a shower, is very effective. For someone who has restricted mobility or doesn't have access to a shower, even just a hand or foot soak makes a big difference. Rosemary is an fairly universally accessible herb that can make that soak uplifting, Chamomile can make it more relaxing.
- make art For some people, their response to stress is to disengage or dissociate: for them, finding emotionally resonant art to engage with and especially, to create for themselves may be essential to recovering that emotional breadth. In our community, a campaign has been launched to paint all of the boring grey electrical boxes art doesn't have to be this big, but we should remember that community buildings belong to the community, and petitioning for a community mural can be very successful. In this sort of situation, the art serves not just as a personal outlet, but again as a community building exercise. Art doesn't need to be static either music, dance, and other physical arts are important! For a person who has little time to engage in art, we can find ways to inject art into our jobs: this was once a fundamental part of trade work, though now our buildings (etc) are often square and boring. How can the work we do every day become art for us?
- avoid the media Not just TV, but news websites, talk radio, scary movies, and any other source of stress disguised as entertainment. (Your lizard brain doesn't know the difference between an axe murderer on TV



and a tiger in your front yard.) Instead, take the time that would have been spent on media, or at least a portion of it, and use it for face-to-face interaction with friends instead.

• community resourcing – We can help clients find people in their communities who can carry some of the weight of their stress, and we can help them find ways to ask for that support. Just being in community alone is helpful – any way someone can get some positive socialization will go a long way towards their health. For those with busy work schedules, commuting to work with a friend, or running errands with a partner can be a good way to find time to see people who make you feel happy.

Herbs can support people through stressful times gently, in the form of nourishment for the body as a whole, and the nervous system specifically, over the long haul – and more heroically, perhaps, in the form of adaptogens for getting through short-term situations. Also particularly useful for supporting stress recovery are herbs that help in high-cortisol situations. Many adaptogens help lower cortisol levels, which is good, and at least some of these adaptogens help undo damage done to the nervous system by chronic high cortisol levels. There has been specific study in this area on tulsi and ashwagandha, who are very beneficial. Other allies for regrowth and regeneration in the nervous system are lion's mane mushroom, st. john's wort, boneset, damiana, and evening primrose. Linden is particularly supportive in this area, due to its moistening action directly on the nervous system. It pairs very well with hawthorn and rose, especially when stress is taking a toll on the heart.

It helps to have a tincture or flower essence on hand for acute situations, tough times, and long days. Linden and sage is a good blend for tea or tincture: particularly for people who feel totally overwhelmed, like the world is hostile or adversarial. For many people, this is how the world makes them feel every day.

Ghost pipe, *Monotropa uniflora*, is extraordinarily effective at intervening in stress which comes from feeling overwhelmed and overstimulation. We've found it an indespensible ally for intense pain (physical, mental, and spiritual), trauma-induced anxiety, panic, and the like.

movement

The sedentary lifestyle is a major instigator of chronic illness; the active lifestyle, a major guard against it! Better yet, movement is free, and can often play a larger role in protocols for marginalized demographics where they may not have access to more costly anti-inflammatory methods, anti-depressants, and so on. Repeatedly, research finds that even just 30 minutes of non-specific exercise daily is more effective than the pharmaceutical Zoloft, that a 10

minute walk three times a day reduces cardiovascular disease risk factors by 25%, that a daily walk diminishes symptoms of Alzheimers, and the list goes on.

The sloth body is uniquely adapted to hang from trees, even when it's sleeping. The flying squirrel body is uniquely adapted to leap from tree to tree. The bat body is uniquely adapted to navigate using sound. The human body is uniquely adapted to walk, efficiently, and for long periods of time. Walking not only provides us with "exercise" to make our muscles toned (which is the priority for most folks today, but probably not the priority for our bodies), but it also is essential to moving lymph throughout the body, moving blood throughout the body (why use only one muscle – the heart – when you have 600 other muscles that can help do the job?), and the flow of electrical current through the body (along unimpinged nerves).

In other words, walking helps our body be fed, take out the trash, and communicate effectively. We feel strongly that all bodies should be walking every day. But while some bodies can handle 6-10 miles a day and long hikes on the weekends, other bodies can only manage a few times around the block. How much of this is constitution, and how much of this is the chronic illness? Watch for people's abilities in this area to change as they improve!

With affluent clients, our work is often in explaining that healthy movement habits are not the same thing as an exercise routine. Thirty minutes at the gym is not appropriate compensation for eight hours at a desk. The human body needs to have movement throughout the day, not in a short compensatory burst. Additionally, the exercise we get at a gym is often contracting the same muscles that we are contracting all day long when we sit in chairs (e.g., the elliptical contracting the psoas), which further exacerbates the problems of sitting.

In marginalized communities, often our work is the opposite: many times, the work that is available in these areas is work with a stressful amount of physical activity, or physical activity that is repetitive in nature. Although we would prefer that everyone have time to just go for a walk, folks working strenuous physical jobs may not have the energy to then also walk home from work. When this is the case, helping a person find ways to use their muscles most effectively through the tasks they need to do in the day is important, whether that's learning how to lift with good support or advocating for antifatigue mats at a workstation.

Stretching is an excellent solution in either situation: it can be done anywhere, in between other tasks. Five to ten minutes of stretching as soon as you roll out of bed, and five to ten minutes before getting into bed, isn't a big time commitment – but it can provide a noticeable difference in mood, digestion, stress, and musculoskeletal discomfort. Throughout the day, occasional five-

minute breaks to stretch can really boost energy and help to get someone through their workday. In situations where breaks are not permitted, a quick stretch can be done in the bathroom, in a storeroom, or even walking from one task to another. The website katysays.com has a lot of information about stretches that can be done to help reverse damage from repetitive movements. Alignment impacts every movement in your day, from standing and walking, to breathing, to the [not-so-]basic squat. Learning alignment points and working to correct culturally common but physically detrimental alignment habits can help relieve undue pressures on the muscles, joints, and organs, improve circulation, and increase mobility, flexibility, and strength.

Some bodies might want more movement: we've worked with clients who need significant movement in their day to prevent moodiness or depression. Occasional sprints and resistance exercises can be very helpful in boosting metabolism and immunity, improving blood sugar control, restoring healthy weight, and improving sense of well-being. You can teach your client some simple bodyweight exercises to start with, or point them at online resources to learn them. They might also be interested in pursuing dance, yoga, circus arts, tai chi, or any of a thousand other creative movement styles – help them find one they enjoy!

Herbs can support movement habits by supporting the musculoskeletal system, especially one that is dry and tight from disuse or misuse – solomon's seal is particularly fantastic in this regard. Circulatory stimulants like cayenne and prickly ash, when appropriate for the individual, can also help a sluggish constitution get up and go; they also speed wound healing when an injury occurs. Muscle relaxing herbs, such as lobelia, can loosen up tight muscles to allow for gentle stretching, or release knots and adhesions accumulated over the course of a grueling work week. Tissue proliferants like comfrey and calendula can speed the healing of a wound and help someone return to normal activity levels. And a nice restorative herbal foot bath, with some of each of these types of herbs, plus a few nervines for good measure, can provide deep relief after a long day on your feet.

sleep

Sleep is so fundamental to any kind of recovery, and so inaccessible in our current culture. Not only are our lives too full of obligations to allow enough time for proper restful sleep, but our society seems to see sleep as an unnecessary evil – the most desirable sacrificial lamb on the altar of Doing More Stuff. This is true across socio-economic class lines, though of course it's easier to resolve in affluent communities (tangibly easier, that is, though possibly not any easier emotionally). Aside from cultural views about sleep (and the impact they have on our physiological *ability* to sleep), environment plays a big role: sleep requires darkness and quiet. Underserved communities have

more light pollution than affluent ones, not to mention more noise, and poorer quality housing closer together. Finding safe, quiet, restful space to sleep isn't necessarily easy.

Light plays a big role in our ability to get to sleep and stay asleep. A simple solution to the problem of street lights and other light pollution is to get good light-blocking curtains; however, this can be cost-prohibitive. Cost-effective (if less attractive) alternatives are to tack blankets or towels over windows. Blankets can be found at thrift shops for a couple dollars, and sometimes are large enough to cover more than one window.

Streetlight is not the only problematic evening lighting: there are multiple studies linking exposure to light in the blue spectrum (such as from the television or computer/phone screens, as well as most electric lighting) to depression. The use of electric lights after sundown is a convenience for our culture – allowing us to choose to do things (or to impose tasks on employees) after a point when, evolutionarily, the human body expects activity to stop. Melatonin – a hormone that not only helps us sleep, but also fights viral infections and has a role in preventing cancer, and is one of the most potent antioxidants currently known – is produced by the body in cycles as the light wanes. Electric lights, televisions, computers, and phones all degrade the body's ability to create melatonin.

It's also important to recognize that hormones are all interrelated: a person whose insulin, or cortisol, or other hormone levels are disrupted will have more difficulty maintaining healthy melatonin levels.

Across all socio-economic lines, we have never found a client whose situation did not improve by putting aside all electric devices and turning out lights after 7:00pm. (Candles, or very dim lighting, can be used if necessary.) This allows the body to produce and increase levels of melatonin over a couple hours before sleeping, so that when a person goes to bed, they don't lay in the dark for a long time waiting for sleep.

There's a second benefit to this action: this also means no television after that point. These days, television has become more and more sensational, polarizing, and fear-inducing. Again, across all clients, we find that giving up television is a fantastic intervention for relieving stress and anxiety, and lowering levels of perceived threat. Often we couple this strategy with a specific plan for more community contact, more outdoor time, etc.

What will people do if the lights are turned off? Some tasks don't require a great deal of light: laundry can be folded, dishes put away, bags packed for the next morning, etc. Reading also requires reasonably little light, and this can be a time when one member of a family reads out loud for the rest of the family.

Storytelling can happen during this time as well, or simply just conversation with friends or family members.

These suggestions all assume a reasonably normative work schedule: for people who do shift work, the day/night cycles need to be artificially recreated in order to sleep (though regularly sleeping off the natural day/night cycle comes with problems that can't be completely resolved by mimicking this cycle), which means care needs to be taken to provide a darkened environment to stimulate the production of melatonin before sleeping.

Noise can also be very disruptive to sleep. Although it's not easy to control, especially in underserved communities where there may be airplanes flying over and other industrial noises, or disruptive noises from neighbors, ear plugs can be a helpful way to block out some noise. These can be found at drugstores for very little money, and while people may find them uncomfortable initially, generally it is not too difficult to acclimate to them.

The more difficult problem to solve is lack of time, often due to the need to work long or shifted hours. Several suggestions in this area again revolve around community – for example, finding a neighbor or relative who can effectively help the children through their homework and dinner and off to bed can make space for a parent to get more sleep. Even if this intervention is only twice a week, that's still some time each week for the parent to catch up.

Teaching children that sleep is important (by the adults in their lives modeling this behavior) is tremendously helpful for their health as well – and here's where getting rid of the television can help. A family could, instead of watching TV in the evening, tell stories to each other (and even draw pictures to accompany them!) and then go to bed early. Again, even if a family only does this a couple times a week, it's a tool to help not only catch up on sleep but also allow the family to be building strong ties.

I recognize that this is the sort of suggestion that is often initially met with skepticism, regardless of who we're working with. But even if these methods can only be maintained for a short period of time, they will make a significant difference in health.

Herbs can aid sleep quite effectively, improving both quantity and quality. A favorite blend is skullcap, passionflower, and wood betony (*Stachys off.*) – this helps to quell circular thoughts and to seat the mind in the body. When the difficulty is greater, add stronger hypnotics: California poppy and wild lettuce when pain accompanies or causes the insomnia, or hops when you need a real knockout.

plan and protocol

If only every client – if only *any* client – had the luxury of organizing their lives such that they could work with all of these suggestions, this work would be so much easier for them. But of course, that would be a full time job all in itself! It might be that as you go through these ideas, a larger plan of the tools that could help someone move to a place of better health comes to mind, but it may be that the plan will be implemented in small steps over the course of time. It will be different for each client.

Validating a person's experiences can be a very important part of working with underserved people, especially for someone who does not have community support. Even something as simple as saying "that sounds really challenging; we can work on that issue together" can make a client feel like they are being heard, and their experience is being respected. This helps the client, makes communication more positive and conducive to reviewing symptoms and intake information, and sets you up for the education phase of your work together.

It is very important to help people understand that their work is a transition. While this is not an excuse to cheat every day, it does mean that they shouldn't guilt themselves (again: check the constitution for your guidance here). If they succeed at a week sugar free, and then have a piece of pie, a lot of work still happened there! They did succeed for a week, and maybe they also noticed some symptomatic reaction to the pie – that experience is worth much more than all the words you can use to convince them. You will probably have to spend some time teaching them this: helping them transition from whatever they thought you were going to say about their pie (criticism, for example, or chastisement) to learning directly from the experience. They may even learn that they can manage a piece of pie as long as they keep it to once a week! There is an art here, of converting confession into conversation, in order to find the right solution for this individual.

Returning to the idea of the compass, the center will influence how fast and in what order you can do this work – both the person's constitution and their current state will affect that path. Even though you can see the whole picture of how you would like them to progress, always remember that *they might not share your goal* and *it might not be achievable in one big bite*. Notice I said, it's the center that will influence the work – and not the resources available. As practitioners, it's critically important that we don't write off strategies that would be helpful just because they seem out of reach: instead, it's our job to get as creative as possible so that we can help bring those goals into reach for everyone.

That's the work across all demographics, actually. It's not difficult to determine what would be healthier than what your client is doing right now – the difficulty is getting them there, whether the barriers are emotional blocks or lack of resources. When we're working with marginalized people, the crippling lack of resources can be intimidating – but when we recognize that the problem

is simply "a barrier", and that the creativity involved in solving the problem is the same creativity that we would use to help someone whose barrier might seem less intimidating, we can realize that all barriers are simply barriers. To the client, they seem equally impossible to surmount. By working with the parts of your plan which address their biggest complaints first, even if it's not what you'd like to see them do first, and working together on breaking through the barriers in this particular person's way, you can help them to gain confidence in the work, and confidence in their own ability to do the work. Combine that with some of the parts of your plan that are easiest to implement – any improvement will begin to create energy for further action.

As they get stronger, they can walk more. As they begin to overcome depression, they can start working on finding a better job. As they become more comfortable eating more vegetables, they can move on to reducing their sugar intake. The effects of the work (their work!) are influencing the center, bringing it closer to balance (actual center!), and giving them more strength to take the next step. While it may feel like a stretch to make those changes – like reaching outward toward one of those compass points – there's a reciprocal ripple, an equal-and-opposite movement, which washes back toward the center and strengthens it.

case studies

case 1 & 2 – both endometriosis; clients born within five months of each other.

case 1

female, 22y at first appointment. firstborn, 5'8, 140lbs, Irish and Lebanese descent. café manager, works 70+ hours/week. eats standard American diet, hippie style: soy milk, tofu, some chicken, lots of vegetables. loves bread, sugar, cheese. uses coffee to work more. sleeps 5-6 hours/night. family history of severe reproductive diseases, mitochondrial disease in mother and sisters. younger sister is disabled.

diagnosed with endometriosis ~17y. after various lesser treatments, had laparoscopic surgery, which drastically increased pain. took vicodin for 6 months and felt she was becoming addicted, withdrew (difficult). continues to vomit 2-3+ times daily from pain. intercourse is not possible without pain that induces vomiting. at the time of intake, uses tramadol and motrin, as rarely as possible. has many cysts, a couple burst every month.

this client has been with our practice for three years, and is now finishing her second year of our professional program. she has had a near complete recovery, and can even have enjoyable sex without pain. she does still work 60+ hours a week though!

initial protocol: gluten free, nettle/dandelion/red clover/licorice root tea, consider meditation.

ghost pipe tincture for pain management; this was very successful, though she did not want to use it except on "bad days" due to a carried over fear of dependence.

over the following six months, adjustments included: casein free, soy free, caffeine free, very limited sugar. add more grass-fed/pasture raised animal protein, more fat, seaweed. added kombucha.

tulsi instead of caffeine, as well as ashwagandha / eleuthero / licorice. sleep increased to 6-7 hours/night. skullcap and passionflower before bed.

over the next year, her work focused on refining her understanding of how food directly affects her symptoms, which ultimately strengthened her commitment to complete avoidance of gluten, casein, soy, caffeine, and extremely limited sugar. she also worked on refining her understanding of how particular herbs affected her state – which ones needed to be taken daily (in particular nettle and ashwagandha), and how to best use them to compensate for the other factors (most notably sleep). she added rose into her protocol for pain management.

more recently, she's working more on trying to deal with the issues of being a work-aholic, as well as trying to manage her stress level.

we added tulsi-betony-rose-violet as tea, and added codonopsis to the ashwagandha / eleuthero / licorice tincture.

we began to incorporate flower essences into her work: motherwort, lilac, golden amaranthus, indian pipe.

case 2

although this case has progressed considerably beyond the diagnosis of endometriosis, the comparison is still apt. it's particularly interesting to see the reversal of symptoms that were not being effectively controlled even with extreme medications.

transgendered FTM, 25y at first appointment. firstborn, 5'5, 160lbs, "generic European" descent. disabled since 16, unemployed. eats standard hippie/student diet. family history of endometriosis, migraine, various autoimmune diseases.

diagnosed with migraines in fourth grade and started on narcotics. sinus surgery. missed more school than not from this point on, dropped out at 16 from pain.

diagnosed with endometriosis at 15. 7 laparoscopies over 3 years, full hysterectomy and oophorectomy at 18. several sinus surgeries also interspersed in this time in attempts to control migraines, as well as many

hospitalizations for migraine pain. has taken IV imitrex up through thorazine, DHE and other extreme and experimental IV meds in inpatient pain clinics, none helped.

insomnia due to pain. chronic fatigue and fibromyalgia diagnoses were made at some point in the last 8 years.

at the time of intake, taking trazadone, levothyroxine, prozac, testosterone IV for gender transition. top surgery in the previous year. marijuana daily for pain management. some days the pain is so intense, he can't even shower – this definition of a "bad day" occurs 3-4 times a week. many significant digestive issues, daily nausea. this is a person in constant, full-body pain.

initial protocol: he had heard about the GAPS diet and liked the idea of all that bone broth. we modified the diet to be completely casein free (it's already gluten free), and skipped the juice that is typicall included. we added extra herbal teas. suggested D3 and B12, magnesium. he was very motivated to change.

initial herbal protocol: ashwagandha/licorice, tulsi, nettle/dandelion/red clover/licorice. goji.

for migraines, experiment with feverfew, linden, betony. st. john's wort oil with lavender, lion's mane, turmeric. (the idea with these last was tying the migraines and the fibromyalgia together, and approaching it from that neurological direction.)

for anxiety, passionflower and skullcap

initial reports, after 3 weeks: loves feverfew, tulsi, and linden. is able to choose between those three for migraine support based on type of pain. (pain is not gone, but manageable) drinks nettle blend daily. loves the modified GAPS diet. meat and vegetables from local CSAs, local eggs.

nausea is almost gone. migraines still happen but has much more energy. can still cook, shower, and dress even on a "bad day". was able to travel out of state to a friend's wedding. sleeping is better (still with trazadone). is able to be active in the day and go out in the evenings with friends. loves passionflower and skullcap.

follow up after second month: laid down on the floor for appointment. crashed from over-doing – had been going out every day. felt "i feel good so i better cram everything in because i might feel bad tomorrow" – recognizes need to adjust that kind of thinking to fit into a new kind of life as illness abates. still feeling positive because he's clear on what happened. had gotten lax with diet, will return to modified GAPS induction diet (all bone broth, all the time). fibromyalgia pain had drastically increased.

emphasized planning downtime into each day – even if he's feeling great. had incorporated new herbs and loves them: ashwagandha from the original suggestion, often with hibiscus, and schisandra.

prefers feverfew over betony, or both together, but not betony alone.

reports grandfather recently diagnosed with celiac disease, and mom is also considering gluten free.

follow up after third month: reports body pain and exhaustion back under control. pacing self, better food. he noted that it's only been three months. he had incorporated D3 and B12 this month and noticed a big difference. still drinking nettle and friends, as well as "burdock and friends" (burdock, dandelion, ashwagandha). has made tincture of feverfew in white wine, likes this a lot, not as harsh as store-bought and very effective.

sleeping is better than ever. employing some new sleep habits, asleep by 10:45, wakes 8/8:30. would like to consider tapering off trazadone if the sleep continues to improve.

planning a vacation with mother: she will say, "why won't you have a drink with me". he is preparing to deal with that, says with conviction: "i will make sure there is the time and space for me to make my food". this was an exciting reflection of commitment to self-care.

over the next few years, this client continued to improve such that he was able to study and go to work full time. he does still manage some daily pain, which will probably always be a part of his life, which he feels may be after-effects of some of the extreme drugs and therapies that he went through, more than anything else. he is also still somewhat sensitive: he does not eat in restaurants or at other people's houses – instead he invites people to his house and he cooks for them. he does take care to make sure he gets enough sleep, time to stretch, and time outdoors. these things have become a part of his lifestyle that he enjoys, and he is also able to incorporate some of them into his work.

Between these two cases, the methodology employed was very similar, but the ways they were employed were very different. In the first case, there was a change of habit, but the implementation was focused more on the way she wrote her grocery list than the issues around accessibility. In the second case, we had to be very creative to find accessible sources of the foods we wanted to incorporate. Some specific strategies that were very effective were building relationships at farmer's markets to get discounted produce at the end of the market or on produce that was bruised, etc. In particular, he was able to arrange barters at the markets – in exchange for free vegetables, he would make kimchi from the vegetables and return a portion to the farmer. He was also able to start a small neighborhood distribution of fermented veggies to trade for other needful items. He was often able to pick up extra food for very low cost at farmer's markets for his roommates or neighbors who didn't have time during the day to attend farmer's market in exchange for other food items that he didn't have cash to acquire.