EPISODE 110: TRADITIONS OF MEDICINE MEET IN THE AMERICAN WEST

In this hour, we talk about the history of two medical traditions that met as Lewis and Clark encountered American Indians in the West.

Gerard Baker: Medicine is spiritual, medicine is physical. Even the physical medicines rely on the spiritual medicines, rely on the help from the creator, the help from the creator’s helpers, if you will.

Peter Coyote: Join me as we explore European and Indian perspectives on medicine after the day’s news.

Optional cutaway for News

Allison Frost: Welcome to this edition of the Latest Tidings, a special feature produced in cooperation with the Daily National Intelligencer. In 1804, celebrating four years as America’s Newspaper. I’m Allison Frost.
There’s breaking news from the Corps of Discovery. Captains Meriwether Lewis and William Clark set out earlier this year to chart the vast Louisiana Purchase and to try to find the famed Northwest Passage. But just three months after setting out, the Latest Tidings has learned, one of the members of the party has died. Sergeant Charles Floyd succumbed to bilious colic.
The man responsible for the medical preparedness of the expedition was none other than the preeminent Dr. Benjamin Rush. The good doctor spoke on the streets of Philadelphia, not far from the prestigious American Philosophical Society. It was here in 1793 that Dr. Rush notably stopped a yellow fever outbreak. This experience, as well as his extensive medical training in Europe, gave him a great deal to draw on as he tried to anticipate all the medical challenges the Corps of Discovery would face. I asked the doctor about the details of Sergeant Floyd’s death. He read from a document written by Captain William Clark.

Dr. Benjamin Rush: “Sergeant Floyd is taken very bad all at once with a bilious colic. We attempt to relieve him without success as yet. He gets worse and we are much alarmed at his situation. He has no pulse, and nothing will stay a moment on his stomach or bowels. Sergeant Floyd died with a great deal of composure. We buried him on the top of the bluff a half mile below a small river to which we gave his name. This man at all times gave us proof of his firmness, and determined resolution to do service to his country, and honor to himself.”
Allison Frost: Dr. Rush says he was disappointed that the party lost a man to disease, especially so early in the expedition.

Dr. Benjamin Rush: Fatal experience has taught the people of America that a greater proportion of men have perished with sickness in our armies than have fallen by the sword.

Allison Frost: A patriot from the beginning, indeed one of the signers of the Declaration of Independence, Dr. Rush considers it his duty and honor to have helped prepare the military party.

Dr. Benjamin Rush: Nature has given the Americans strength; and the cause of liberty has given them principle above the common soldiers of any other army upon the face of the earth.

Allison Frost: Dr. Rush gave the Captains Lewis and Clark a long list of medical supplies, the cost of which exceeded ninety dollars.

Dr. Benjamin Rush: Lancets, tourniquets, Peruvian bark, jalap (a purgative), Laudanum (opium), Glauber salts, Niter (saltpeter), Calomel and mercurial ointment.

Allison Frost: And importantly, fifty dozen of Dr. Rush’s patented pills, which are also known as “Thunderclappers.”

Dr. Benjamin Rush: They have most excellent action of purging the system.

Allison Frost: Of course none of these remedies were able to help poor Sergeant Floyd. Dr. Rush did not say whether or not he himself might have been able to save the soldier had he been there to personally employ remedies he taught Captain Lewis, chiefly blood-letting.

Dr. Benjamin Rush: Let no one call bleeding a cruel or unnatural remedy. By artificial blood-letting, we can choose the time and place of drawing blood, and we may regulate its quantity by the degrees of action in the blood vessels. The practice frequently strangles a fever; reduces the uncommon frequency of the pulse, as well as rendering the pulse more frequent when it is [un]naturally slow; it renders the bowels, when costive, more easily moved by purging physic.

Allison Frost: That was the esteemed Dr. Benjamin Rush. He oversaw the medical preparations for the Corps of Discovery, which set out just a few months ago from St. Louis. Despite the best efforts of Captains Lewis and Clark, Sergeant Charles Floyd died of bilious colic. He was buried on a bluff overlooking the Missouri River.

In other news, Tennessee has voted to adopt the 12th Amendment to United States Constitutions. The amendment changes the way the Electoral College elects the president and vice president. The electoral body will now cast separate votes for the president and vice president, rather than casting both ballots at once. Congress proposed this change following the presidential debacle of 1800 in which Thomas Jefferson and the vice presidential candidate, Aaron Burr, had an equal number of votes, sending the election to the House of Representatives. With Tennessee’s ratification, the 12th Amendment is now the law of the land.

And that’s the last word for this edition of the Latest Tidings, I’m Allison Frost. Our program is produced in cooperation with the Daily National Intelligencer. Celebrating four years as America’s Newspaper, since 1800.

[Program theme music]
Peter Coyote: Meriwether Lewis was a military man and explorer, not a medical doctor.

Clay Jenkinson: Actually, Lewis had the opportunity to train with one of the finest medical minds of his time, and he was the son of an herbal practitioner. He acted as the physician of the expedition. In addition, his trip West introduced him to tribal views of medicine that went back for centuries.

[Theme music continues]

Peter Coyote: The Lewis and Clark Expedition left St. Charles, Missouri on May 14, 1804 and traveled 7,689 miles to the Pacific Ocean and back again. The trip took more than 28 months. The expedition was President Jefferson’s brainchild, commanded by his friend and protégé Meriwether Lewis and his old Army friend, William Clark. It is considered the most successful exploration in American history. Today, we explore two worlds of medicine that co-existed during the frontier era. We’ll talk about the state of European-based medicine at the turn of the 19th century as well as Indian healing traditions. Clay Jenkinson, humanities scholar-in-residence at Lewis & Clark College in Portland, Oregon, joins me now. Can you give us a medical check-up on the young United States? What was the state of the nation’s health at the time?

Clay Jenkinson: As you might imagine, life was much more perilous and brief than it is today. David Peck is a physician and the author of the definitive medical history book *Or Perish in the Attempt: Wilderness Medicine in the Lewis and Clark Expedition*. Here’s his take on this question:

David Peck: Survival to an old age in America at that time was certainly a risky proposition. And if you made it through childhood chances are that you probably could live to be elderly. However, there were so many infectious diseases that just swept people into an early grave in childhood that it was just a profoundly very tenuous existence at best.

Peter Coyote: Dr. Peck’s description of life in the United States in 1800 sounds pretty grim.

Clay Jenkinson: From a medical standpoint, it was. And keep in mind that the native population had no immunity to a number of European contact diseases that were touching off deadly epidemics across the landscape. Elliot West, distinguished professor of history at the University of Arkansas, describes one devastating example of those epidemics.

Elliot West: The coming of the horse had one great tragic consequence, I think, in that it allowed the easy transmission of smallpox that ravages the American West during the American Revolution. As the American Revolution is unfolding on the East Coast, there’s this other terrible event unfolding in the West.

Clay Jenkinson: By the way, Peter, Professor West believes that yellow fever played a role in the Louisiana Purchase, which in turn shaped the Lewis and Clark Expedition.

Elliot West: Napoleon’s ambitions in the New World were destroyed by the yellow fever epidemic in the very last years of the 18th century and early years of the 19th century, which destroyed that and the opposition of the peoples there. It killed 80 percent of his army, 60 percent of his officer staff, including its commander, his brother in law Leclerc. And it was that as much as anything that convinced Napoleon, ‘Well, here, take it. I’m going to need the money anyway, so take it.’ So yellow fever gives us Louisiana. It changes the purpose of the Lewis and Clark Expedition from one of simple exploration to one of national definition, literally defining our boundaries. It gives
us this vast territory of expansion. It settles the question of control of the Mississippi River. It’s the mosquito, the *Aedes egypti* mosquito in a sense that allows that to happen.

Peter Coyote: Fascinating, though I doubt President Jefferson ever considered thanking the lowly mosquito for that real estate deal. Clay, before we go into the medical preparations for the expedition, I have to ask you something. Is there any truth to that Steve Martin skit on *Saturday Night Live* that seems to capture the roots of Western medicine?

Announcer: In the Middle Ages, medicine was still in its infancy. The art of healing was conducted not by physicians, but by barbers. The medieval barbers were the forerunners of today’s men of medicine, and many of the techniques they developed are still practiced today. This is the story of one such barber.

William: Hello, Theodoric of York. Ah, it’s springtime, and I’m here for my annual haircut and bloodletting.

Theodoric of York: Welcome, son of Miller. It’s time to see you now. Have a seat. Brungilda, you start his hair, and I’ll open up one of his veins.

Brungilda: Yes, Theodoric.

Clay Jenkinson: Well, that image is not entirely wrong, Peter. Bloodletting was a common medical treatment on the Lewis and Clark Expedition. In fact, the medical adviser of the expedition, Benjamin Rush, was popularly known as “The Bleeder.”

> *One man very sick, struck with the sun, Capt. Lewis bled him & gave niter which has revived him much.*
> *William Clark, July 7, 1804*

Clay Jenkinson: “Nitre” was potassium nitrate, or saltpeter. Lewis was, of course, a man of the Enlightenment, and Enlightenment science with its emphasis on careful observation was having an impact on the practice of medicine, as well as other scientific thought. But there was no formal medical certification process at the time.

Peter Coyote: So what kind of medical training did Lewis have?

Clay Jenkinson: First, he learned about the medical properties of plants at the side of his mother, Lucy Marks, who was an accomplished herbalist. And to prepare for the expedition to the Pacific, Thomas Jefferson sent Lewis to visit the Philadelphia physician Benjamin Rush for a tutorial that lasted about two weeks. Rush was a prominent American citizen—a signer of the Declaration of Independence, for example. And he was a member of the American Philosophical Society. He was also a personal friend of Thomas Jefferson. He remarked on Lewis’s training and his own interest in the expedition in a letter to President Jefferson:

> *Dear Sir,*
> *I have endeavored to fulfill your wishes by furnishing Mr. Lewis with some inquiries relative to the natural history of the Indians. The enclosed letter contains a few short directions for the preservation of his health, as well as the health of the persons under his command. His mission is truly interesting. I shall wait with great solicitude for its issue. Mr. Lewis appears admirably qualified for it.*
> *Benjamin Rush, June 11, 1803*

Peter Coyote: And what was Benjamin Rush’s own medical background?
Clay Jenkinson: At the age of just thirteen, Rush began studying at Princeton, in New Jersey. When he graduated two years later, he served a five-year medical apprenticeship in Philadelphia, where, as David Peck points out, he had access to the best medical training available in the colonies. Then, he went off to study at the international center of medical training, the University of Edinburgh in Scotland.

David Peck: During the later half of the 1700’s, from 1750 up until about 1800, the University of Edinburgh in Scotland really became the leading medical school in the world. And one of the leading medical professors at Edinburgh during that time was William Cullen. There had been some interesting discoveries in the field of biology, and particularly neurology and the nature of nerve cells, and there started to be some theories put forth as to how nerve cells and muscle cells worked, and some of the physiology experiments came back to Cullen. And Cullen devised a rather intricate and interesting mechanism of describing disease. He thought disease was caused by what he called a “spasm of the nervous system.”

Clay Jenkinson: Rush studied the theories of Cullen and his Edinburgh colleague John Brown. So Meriwether Lewis—if he was listening—was privy to as much medical knowledge as was available from the best minds at the time in the United States through Dr. Rush.

Peter Coyote: You mentioned that Rush was known as “The Bleeder” a few minutes ago. Was that his favored method of treatment?

Clay Jenkinson: As a matter of fact, just like Steve Martin’s Theodoric of York, Rush believed in bleeding his patients to cure a variety of illnesses.

Woman: She still feels as listless as ever, if not more.

Theodoric: Well, let’s give her another bloodletting. Brungilda, take two pints. [laughter]

David Peck: His observations showed him that fevers of various kinds came on after a state of debility, which he called it, or just weakness. And he proposed that the nervous system that went into spasm that William Cullen had taught him about led to a problem of the circulatory system and caused the blood vessels to go into spasm. And he logically inferred that the substance that was causing the blood vessels to spasm, that was acting on them, was of course the blood. And it was only logical in this framework of treatment that you should remove some of that offending substance. So he would repeatedly bleed his patients and he suggested anywhere from eight to 80 ounces could be removed, which is a tremendous amount of blood. And his proof that his therapy was working is that a patient who received a good bloodletting would relax. Of course, that simply lowers a person’s blood pressure to the point where they cannot maintain consciousness.

Theodoric: Well, I think a little more bloodletting and some boar’s vomit and he’ll be just fine!

Man: [groans] [applause]

*Dr. Rush to Capt. Lewis for preserving his health, June 11, 1803:*

*When you feel the least indisposition, do not attempt to overcome it by labour or marching. Rest in a horizontal posture. Also fasting and diluting drinks for a day or two will generally prevent an attack of*
Clay Jenkinson: Laxatives and medications that induced vomiting were also favored forms of treatment, to purge the body of what were known as “peccant humours.” Dr. Rush provided the expedition with fifty dozen doses of his own special concoction that combined jalap—a plant root—and calomel, a mixture of mercury and chlorine. These so-called “Thunderclappers” were used to clean out the intestines of the expedition’s personnel.

I continue to be verry unwell fever verry high; take 5 of Rushes pills & bathe my feet & legs in hot water
William Clark, July 27, 1805

Peter Coyote: Mercury and chlorine—sounds terrible! And wouldn’t that be poisonous?

Clay Jenkinson: Yes, and Dr. Peck notes that Clark was taking a potentially fatal dose of mercury when he took those five pills. But as it turns out, mercury is less potent when ingested than Dr. Rush might have thought. This mercury dosing turned out to have an unexpected benefit. Archeologists generations later seeking evidence of the expedition in the soils of Montana have searched for concentrations of mercury.

David Peck: Over the last couple of years they have established the presence of this mercureous chloride or calomel in heavy concentrations in the ground, which led them to finding the location of the latrine at Traveler’s Rest, and it’s interesting to note that the reason they found this in the ground is because this stuff is so poorly absorbed in the human intestine. These guys are popping these bilious pills of Dr. Rush and only about 15 percent of that mercury is actually absorbed into the body. The rest is simply passed out when the patient has a bowel movement. And that lead to this high concentration of mercury in the ground at Traveler’s Rest.

Peter Coyote: OK, so Lewis was exposed to the best Western medical theories of the day, even though the remedies that were favored might have done more harm than good. What supplies did the expedition bring that we would consider effective in modern medical terms?

Clay Jenkinson: Fully one-third of the money Lewis spent on medical supplies was used to buy 15 pounds of powdered Peruvian bark made from the cinchona tree. The bark contains quinine, and of course today we know that it is effective against malaria. It’s interesting to note that this bark came from South America, an early example of an indigenous medical remedy that benefited white Europeans.

Peter Coyote: We’re going to talk more about the concept of Indian medicine later in this program. But first, I want to ask you about the general health of the expedition members. How did they fare medically?

Clay Jenkinson: Most historians say that the men of the expedition survived in spite of the medical treatments of the time not because of them. In fact, only one Corps member died on the long trip to the Pacific and back again. Charles Floyd died early on, about three months into the journey:

Serj. Floyd Died with a great deel of Composure, before his death he Said to me, “I am going away” [“]I want you to write me a letter”— We buried him on the top of the bluff ½ Miles below a Small river to which we Gave his name, he was buried with the Honors of War much lamented; a Seeder post with the (I) Name Sergt. C. Floyd died here 20th of August 1804 was fixed at the head of his grave—
William Clark
David Peck: I think the leading candidates for what killed Floyd are certainly the possibility of appendicitis, which is conventional wisdom through the years. Everybody says it was appendicitis, which I think is a good candidate. I think some other possibilities are, I think he could have died from a bad case of systemic tularemia. Tularemia is a very serious bacterial illness that can be caught in a number of different ways. It can be caught by ingesting infected water, by breathing infected dust, and also by cleaning infected game meat. Certainly with whatever problem he had at the time there was nothing in medical science at that time that would have been able to help him.

Clay Jenkinson: The expedition was in danger all of the time from animals such as rattlesnakes, rabid wolves and grizzly bears; guns that somehow malfunctioned; wounds that just wouldn’t heal. They suffered from frostbite in part because they wore moccasins to cross the Rocky Mountains. Imagine that—crossing the Rockies with moccasins in winter! It was miserable. But somehow, with the exception of poor Charles Floyd, felled by illness that probably would have killed him even if he had stayed at home, they all managed to survive.

Dr. Rush to Capt. Lewis for preserving his health, June 11, 1803:
After having had your feet much chilled, it will be useful to wash them with a little spirit.
Washing the feet every morning in cold water, will conduce very much to fortify them against the action of cold.

Peter Coyote: Now let’s test your knowledge of the Lewis and Clark Expedition: Which member of the expedition was called “Big Medison” by the Arikara Indians when the expedition met that tribe in 1804? The answer, later in our program. And coming up next, Indian medicine:

Jack Weatherford: In the English language, the English-speakers began using the word medicine as the translation for these various Indian words that meant this combination of power and sacredness.

Peter Coyote: I’m Peter Coyote. You’re listening to “Unfinished Journey” on PRI.

[Program Break: The Makoché Masters “We Shall Follow Our Brothers” (Makoché Music MM0191D)]

[A] dwarf cedar of the open praries seldom ever rises more than six inches high— it is said to be a stimulating shrub— it is used as a tea by the Indians to produce sweat. Meriwether Lewis, October 16, 1804

Peter Coyote: We’ve talked about the medical challenges facing white people during the time of the Lewis and Clark Expedition. Clay, what do we know about the medicine Lewis and Clark encountered when they ventured into the homelands of American Indians? And how did they regard tribal medicine?

Clay Jenkinson: Generally, Native Americans viewed the world very differently from the white explorers who were visiting their homelands. Jack Weatherford, professor of anthropology at Macalester College in Minnesota, explains.

Jack Weatherford: In the 19th century, we really just see science coming into its own in the Western world. So when Western scientists saw so-called primitive people or tribal people around the world, they assumed they had no science, when in fact they often had a very deep understanding of the world around them, but it was arranged differently than the arrangement that the Europeans were using at that time. I think in the native world in the 1800’s it would be impossible to separate out science from spirituality, from production, and from daily life.
Peter Coyote: Roberta Conner is an enrolled member of the Confederated Tribes of the Umatilla and director of Tamástslikt Cultural Institute near Pendleton, Oregon.

Roberta Conner: We had remedies that people in modern times would call medicinal remedies, and most of them would be considered by modern standards alternative therapies because they would combine the sweat house, the cleaning of toxins from your system, swimming in the cold river, prayer and song, and your connection to the whole metaphysical universe, with poultices and herbs and teas that in modern times people have found have medical properties.

Peter Coyote: Gerard Baker is Mandan-Hidatsa, and superintendent of Mount Rushmore National Memorial.

Gerard Baker: Medicine is spiritual. Medicine is physical. Even the physical medicines rely on the spiritual medicines, rely on the help from the creator, the help from the creator’s helpers, if you will, the spirits of the land, the spirits of the hills, the spirits of significant hills or areas that have certain spirits in them that help you out. So the medicines were very, very extremely complicated.

Peter Coyote: How open were Lewis and Clark to learning about Indian medicine from the tribes they encountered?

Clay Jenkinson: Interestingly, Lewis, who didn’t always get along as well as Clark with the tribal people they met, seemed most open to the idea. He noted Indian medical practices in his journal. And when Sacagawea was enduring a difficult labor, he took the advice of a Canadian trader by the name of Rene Jusseaume who had lived among the Mandan for a long time, and treated her with a local remedy.

Mr. Jessome [sic] informed me that he had frequently administered a small portion of the rattle of the rattle-snake, which he assured me had never failed to produce the desired effect, that of hastening the birth of the child; having the rattle of a snake by me I gave it to him and he administered two rings of it to the woman broken in small pieces with the fingers and added to a small quantity of water. Whether this medicine was truly the cause or not I shall not undertake to determine, but I was informed that she had not taken it more than ten minutes before she brought forth.

Meriwether Lewis, February 11, 1805

Clay Jenkinson: Maybe it’s not so surprising that he was curious about the medical practices of his Indian hosts, given his interest in botany and his devotion to scientific observation. But if the journals are any indication, he was also more open to the spiritual power of the West than was William Clark.

Did not think it prudent to remain all night at this place which really from the succession of curious adventures wore the impression on my mind of enchantment; at sometimes for a moment I thought it might be a dream.

Meriwether Lewis, June 14, 1805

Peter Coyote: Clay, did the tribal peoples Lewis and Clark spent time with believe they could learn anything from European medicine?

Clay Jenkinson: Apparently some of them were open to it. Lewis and Clark treated some of the Indians they encountered for medical ailments. Although he did not have Lewis’s training, Clark was popular as a physician.
Peter Coyote: Here’s an example of one of Clark’s more successful treatments, from a re-enactment at a Lewis and Clark bicentennial signature event in St. Charles, Missouri in 2004.

Speaker: There was this wife of an Indian—this happened in Idaho where I come from—and her husband brought her to Dr. Clark. She suffered from an abscess right at the base of her back, probably about as big as my fist. Imagine a big boil, a big abscess. Dr. Clark took a blade, probably like this (audience gasps), went through that abscess, let it drain out and then probably stuck some lint in that hole so it would drain. She slept well, and in addition to draining that abscess they placed basilicium around the injury, because Pine Sol™, antibacterial, they didn’t know about bacteria, but it helped to heal wounds. She also got a gentle purge, which we’ll talk about shortly, and a few other medicines.

Peter Coyote: Did Lewis and Clark respond to the broader concept of Indian medicine, beyond the narrow confines of medical science? I mean, medicine in a spiritual sense.

Clay Jenkinson: Lewis does seem to have understood that something else was going on. He gives a definition of “great medicine” in his description of the Shoshone reaction to the expedition.

Every article about us appeared to excite astonishment in their minds; the appearance of the men, their arms, the canoes, our manner of working them, the black man York and the sagacity of my dog were equally objects of admiration. I also shot my air-gun which was so perfectly incomprehensible that they immediately denominated it the great medicine. The idea which the Indians mean to convey by this appellation is something that emanates from or acts immediately by the influence or power of the great spirit; or that in which the power of God is manifest by its incomprehensible power of action.

Meriwether Lewis, August 17, 1805

Peter Coyote: Sounds as though members of the expedition were pulling everything out of their bag of tricks to impress their hosts.

Clay Jenkinson: Yes, I’m afraid they put on a bit of a ‘dog and pony show’—manipulating a compass with a magnet, making fire with a magnifying glass. Here’s anthropologist Jack Weatherford again.

Jack Weatherford: In the English language, the English-speakers began using the word “medicine” as the translation for these various Indian words that meant this combination of power and sacredness. So, for example, in some cases when the horse was seen and had not been known before, it would be called the “medicine dog” as a sacred, more powerful animal than the dog. Or when Lewis and Clark fired their guns and they translated the word “medicine” as the people were afraid of the medicine, it’s just another way of saying “the power.” “Medicine” was very commonly used in 19th century English to represent this whole conglomerate of sacred powerful words in Indian languages because we had nothing comparable in the English language.

Peter Coyote: Clay, let’s talk about York who was mentioned in Lewis’s journal passage earlier. He was Clark’s slave, a man looked down upon by whites in parts of the United States. But out West, among native tribes, how was he viewed?
Clay Jenkinson: There were tribes who saw him as powerful, as desirable, as maybe the leader of the expedition. For them, his skin color conferred status instead of prejudice. Clark’s journal entry on October 9, 1804 helps us to understand why we should talk about York in this context.

_The Indians much asstonished at my Black Servent and Call him the big medison, this nation never Saw a black man before,_
_William Clark, October 9, 1804_

Peter Coyote: Ah, so that’s the answer to our quiz question: it was York who was called “big medison” by the Arikara Indians.

Clay Jenkinson: Yes, that’s at least how Lewis and Clark understood it. After the expedition, Clark told Nicholas Biddle, the man who edited the journals, that an Arikara man had invited York into his lodge to have sexual relations with his wife, perhaps in order to incorporate his “medison” into the Arikara tribe. But it’s very important here to see sex not as an isolated act—certainly not as recreation—but as part of something larger in the Indian world view.

Peter Coyote: Let’s get some further insight into what Indians’ broader view of medicine involves.

Roberta Conner: In the sense that people have the ability to influence others by their powers, their personal powers, there are people just like today that have many, many, many children, and have the ability to produce many, many offspring. They were virile, and that was a kind of medicine.

Gerard Baker: In those days, we had ceremonies, for example, that we understood would take the power and the knowledge of one and transfer it to another by a certain act, by intercourse. And at that time, that was positive. At that time, that’s what we understood.

Peter Coyote: Clay, I still don’t think we’ve completely captured the Indian concept of healing and medicine.

Clay Jenkinson: Peter, that’s because Indian medicine involves much more than medical healing. It’s a way of seeing the world and everything in the world. It’s a more comprehensive view, that everything in the universe has a certain divinity in it—rocks, sky, sex, bears, coyotes—and it’s important for humans to be in tune with everything.

_Music_

Clay Jenkinson: You know, Peter, I had the honor a few years of being in a sweat lodge ceremony in Helena, Montana with a man named Joe La Fontaine. It was a truly remarkable experience, and at the end of it he said, ‘Come on back any time if you want to learn more about the healing powers of the sweat lodge.’ So not long ago I flew out to Helena to meet with Joe La Fontaine and his brother, Ron. We drove out to the lodge a few miles north of Helena in a kind of rundown city/county neighborhood. We did not actually do a sweat that day because the wind was blowing so hard. But we sat in the lodge and talked for hours about the work that Joe has done with young Indian men who have been in trouble with the law or had substance abuse problems or had trouble staying in school. The lodge didn’t look like much from the outside, but I know that Joe has lavished almost unbelievable attention to getting it right: orienting the lodge in precisely the right way, gathering all the materials in a sacred fashion, choosing the stones, or in a sense letting the stones choose him, that will be used to heat the water in the lodge.
Joe La Fontaine: This is the lodge, this is the center of the universe. These stones here, these sacred grandfathers, that’s the center of this universe that we’re in. When we take these stones out there and we heat ’em up with that sacred fire—’cause that fire is purification—and we bring these grandfathers in, they sit before us and we see nothing in this universe that we’re in except that red that’s sitting there before us. And that red is who we are. That’s what pumps through every one of us, no matter what we look like on the outside. Every one of us are red on the inside and that’s our commonality here inside this universe. It’s spirit skills. So, when we come in here and close that door, all we see is the power of those grandfathers in front of us. We pour that water on there, and that’s the breath of the creator. [blows] He loans you his breath with the steam that comes off these stones. They cleanse you in a real gentle way. They pull things out of you that are weighing you down in this life. They take ‘em into that sacred fire before us here and they clean ‘em up. So as these grandfathers pull those things out of us, the less willing we are to give ‘em up, the more we suffer. So when you first come to the lodge oftentimes, you suffer like pretty because you don’t know you got those things and you don’t know you’re holding on to them. But the more you come, the easier it is to get rid of ‘em. Pretty soon, you’re in balance. You can come here with 101 of these grandfathers in front of you and just enjoy the power that the creator has given you. All of this is part of that making a relation. So here we are in front of the grandfathers. They’re loaning us this breath of the creator. They’re taking things out of us that are unhealthy for us. That’s why we come here. These grandfathers clean us up, they open us up, they give us a new life every time we step outside this universe. Every time we open the door and the sweat’s over, we step outside there, we have a new life. It’s always with us. It’ll never go away. It’s a part of us; it’s part of that medicine bundle that the spirits give each one of us.

[Chanting]

As you know, the tobacco is really important. Really important. And we offer this tobacco for the people and leave it up to the spirits to carry it with them. That’s the way we’re going to offer this tobacco. [speaks in native language] Grandfather, I offer this tobacco and I ask that good things come from this, grandfather. Here before these stones, grandfather, I ask that you accept this offering, grandfather. Hear our words in a good way today, grandfather, good help, your people. I ask, grandfather, you take pity on us. Help us, grandfather. It’s really important to understand that this road that the creator laid out for us, it’s for every one of us. Nobody can say, you can’t walk this road. But they can say, maybe you shouldn’t do this while you’re walking this road. That little piece of understanding makes your path a little bit broader instead of quite so narrow. If you set yourself with a really narrow path toward the creator, you’re setting yourself up to fall down. Give yourself room to walk, give yourself room to look around as you walk.

[Chanting, music fades]

Peter Coyote: Modern Western medicine has brought relief to many in the world—the eradication of smallpox, for example—and a fuller understanding of how disease functions in the physical body. But in the era of Lewis and Clark, while European physicians still struggled with basic biological concepts (sometimes with disastrous consequences for their patients), it could be argued that indigenous people, and their profound knowledge of plant life and the world they lived in, fed, healed and enhanced the wealth of many white Europeans. Anthropologist Jack Weatherford described several examples to illustrate that point:

Jack Weatherford: All the forms of potato that are eaten in the world today, all the forms of the tomato, all the types of chili peppers that grow in many different countries of the world today and add a lot of vitamin C as well as a lot of flavor to the diet, sunflower seeds which are a great source of oil and also a great source of protein for both animals and humans—all of these came from American Indians as well as the crop we know the most about in the United States, and that is American Indian corn, or maize. In addition to these edible crops, there were also many important non-edible crops, for the United States in particular, the important ones were first, tobacco, on which the United States was founded, and then about the time of Jefferson, the United States was beginning that transition into a half a century of dependence on cotton for its wealth. Again, cotton came from the American Indians and
the entire knowledge for the cultivation of cotton came from them. So the wealth of the United States was very much based on the spread of these American Indian crops around the world. If we can say that the greatest area of contribution of American Indians was in the agriculture that they developed and that spread around the world, the second most important area would be in pharmaceuticals, in drugs, in medical knowledge of the world around them. The one that panned out to be the most important came out of South America with the bark of quinine. This turned out not to be not a cure, but a treatment. It was still very important—a treatment and a preventative for malaria. Malaria was, as it is today, one of the major killers of the world. By using this medicine that eventually became known as quinine, many people in Europe were able to live a much better life and for the most part malaria was wiped out in Europe.

Peter Coyote: Coming up next, a look at ways in which the medical traditions of Indians and white Europeans are merging today.

Cyndi Sheldon: Traditional people are really trying to bring a person into harmony and balance and then they feel illness will go away, whereas Western medicine deals with symptoms and tries to cure specific illnesses that are results of imbalance.

Peter Coyote: I’m Peter Coyote. You’re listening to “Unfinished Journey: The Lewis and Clark Expedition” on PRI.

[Program Break: Aaron Meyer/Bill Lamb-Unfinished Journey: The Lewis and Clark Expedition Soundtrack (Interlude)]

Peter Coyote: In more than two hundred years since the United States became an independent nation, white European ideas about science and medicine have existed side-by-side with traditional Native medicine. Yet, few attempts have been made to blend the two, or even to explore where the traditions might reinforce each other. We sent correspondent Mary Sawyers to find out if there is a place where both traditions are used to treat patients. She filed this report from the Navajo Nation.

Mary Sawyers: Behind the yellow stucco buildings of the Indian Health Center in Winslow, Arizona, there’s an eight-sided structure made of wood. Beige, with brown trim and a chimney sticking out the top, this is a modern version of the traditional Navajo hogan. Inside an older man in a brown, buttoned-down shirt sits at his desk. He’s thin, with deep lines etched into a handsome face, his black and grey hair pulled into a pony-tail.

Jones Benally: “My name Jones Benally, and I’ve been here nine years to help the people.”

Mary Sawyers: Benally is a medicine man, the first one hired by the federally-funded Indian Health Service to work alongside Western practitioners. He trained for decades with his mother, uncle and grandfather. When he’s not in Winslow, Benally practices medicine at home near Flagstaff, and travels with his family performing traditional hoop dances and songs like this one. (chanting) Before the mid 90’s, clinic director Frank Armao says Indian Health clinics weren’t allowed to hire traditional healers.

Frank Armao: And in the old days, that’s what used to happen. We had almost no contact with traditional healers, they had almost no contact with us. There was a lot of hostility, not very much respect and acceptance on either side. And that’s the dilemma these poor patients would face all the time: who do I listen to?

Mary Sawyers: That’s starting to change. Clinics in Alaska, California, and parts of the Midwest also have
traditional healers, but it’s still not the norm. The federal government doesn’t reimburse for their services, and Cyndi Sheldon who coordinates the program at Winslow, says there are other roadblocks.

Cyndi Sheldon: I think that one of the reasons you don’t see more of this is that Western hospitals are not culturally sensitive. They don’t have a clue about the value of this.

Mary Sawyers: Winslow serves about 17,000 patients a year, one-eighth of the vast Navajo nation. Many patients drive more than 100 miles to get here, and Sheldon says they like having access to both kinds of medicine.

Cyndi Sheldon: Traditional people are really trying to bring a person into harmony and balance and then they feel illness will go away, whereas Western medicine deals with symptoms and tries to cure specific illnesses that are results of imbalance.

Mary Sawyers: While Western practitioners might start by asking a patient where it hurts, Navajo healers diagnose by gazing into crystals, or rubbing corn pollen on their hand and waving it in front of a patient—a practice called hand trembling. Jones Benally tells me he can “see” what’s wrong with patients.

Jones Benally: With your own eyes, you X-ray the people—what the problem.

Mary Sawyers: In the Navajo language there are no words for heart disease, cancer or diabetes. Benally says those are just symptoms of a deeper problem.

Jones Benally: We don’t call diabetes, nothing. I don’t say diabetes. Diabetes nothing, it’s just like plain wall.

Mary Sawyers: It doesn’t mean anything to you?

Jones Benally: Yeah.

Mary Sawyers: Native healers believe illness occurs when the spirit, mind and body are out of balance. The cause could be immorality, an evil spirit casting a spell, even negative thinking. To bring the person back into balance the healer might offer a prayer, a healing ceremony, or herbal remedy. Benally also uses body manipulation, which he demonstrated while I lay on a cushy vinyl table.

Jones Benally: Breathe, but not too much, just normal breathe. See, that’s the….

Mary Sawyers: That hurt!

Jones Benally: It does hurt, but it’s also pain.

Mary Sawyers: After about five minutes of Benally cracking my neck and working on my back, I did feel better. But I began to wonder how these two very different approaches could coexist. Western medicine relies on placebo-controlled trials to find out if a drug or therapy is working. It would be difficult to measure the effectiveness of Native American medicine this way, not just because each healer has his or her own methods, but because outsiders are rarely allowed to see the healing process, although I did find one Navajo man willing to describe a ceremony.

Abe Plummer: That was a very powerful experience.
Mary Sawyers: Abe Plummer suffered for years with nightmares, back spasms and indigestion. He was eventually diagnosed with post-traumatic stress disorder. And even though he’s a Western trained social worker, Plummer hired a medicine man to perform a ceremony called “The Enemy Way.”

Abe Plummer: He brought pine tree boughs or branches and he made a cone out of those branches with the help of my daughter, my son-in-law, a couple of men that were helping me.

Mary Sawyers: Plummer was then told to sit by the fireplace. The cone was placed over him and then, during a traditional song, relatives used arrowheads to cut it away. When the cone fell to the floor, he says he felt a load lift from his mind.

Abe Plummer: It just released me, and I wept because this experience was so powerful. From that day forth, I’ve never experienced bad dreams, nightmares or the stomach ailments. My PTSD issue was cured. I healed, you know, from that ceremony.

Mary Sawyers: That’s not to say Plummer doesn’t also value Western medicine. He takes antibiotics for infections, and would go to an emergency room if he had a stroke or heart attack. One survey on the reservation found that more than 60 percent of patients use both Western and traditional medicine. Pat Ashley may seem an unlikely person to use both. He’s a medicine man, but also takes insulin for diabetes.

Pat Ashley: Yeah, I’m a diabetic. I get my medicine here, and I tell a patient, you just follow doctor’s order. That’s what I preach a lot here.

Mary Sawyers: Ashley works part time at Winslow, practicing some traditional medicine. But most of the time he educates patients in the diabetes clinic while they wait to see their doctor. Ashley speaks alternately in English and Navajo. He tells patients to exercise and avoid high sugar foods. He explains that insulin will control their blood sugar. But, he says there’s also a traditional medicine that will do the same thing. It’s just harder to find, especially in the winter.

Pat Ashley: You can boil it and you can drink the tea out of that herb and it will bring down the sugar.

Mary Sawyers: Nurse practitioner Maree McHugh works in the diabetes clinic. She doesn’t know what the herb is, but respects Ashley’s right to tell patients about it.

Maree McHugh: I think that what the patient believes is probably the most powerful. That personal belief is so powerful, so if the patient believes that they don’t have diabetes, if they don’t believe in their medicine, then they won’t take it. And why would I prescribe it?

Mary Sawyers: Combining ancient traditions with modern medicine does pose challenges, especially when the medicine man’s advice is contrary to that of Western doctors. But, for the most part, people at Winslow say the partnership has been a success. Clinic director Frank Armano is also a psychiatrist. He says he often refers patients to Jones Benally for conditions like mental illness and alcohol abuse.

Frank Armano: There’s a lot of things that pills and scalpels aren’t going to fix and so we just need to maintain an open attitude and help each other out. And as Jones Benally always says, we’re all just human beings here trying to
help each other out.

Mary Sawyers: The Navajo word *hozho* means living in a state of peace, harmony and beauty. One Navajo man told me that if we all lived that way, none of us would get sick or have a need for any kind of medicine. As I drove back to Flagstaff, I wondered if he might be right. From the Navajo Nation, I’m Mary Sawyers.

Peter Coyote: Generations and cultures often share knowledge. But as modern American culture becomes more open to Indian medicine, to various alternative therapies, some American Indians caution that there may be a fine line between borrowing ideas and appropriation, or even misuse. Perhaps that is the new challenge facing white and Native Americans in modern times.

Roberta Conner: People who are accustomed to codifying behavior into categories tend not to be able to use or see or comprehend the whole package. So people who come to our community and want to extract songs and prayers and sweat house practices may take that away and exploit that, but they don’t take with it the sense of humor, the community accountability, the kinship system in which it thrives, the ethics that go with the sweat house about sharing it, about making it available for people in need, about how to leave it clean, about what kind of wood and rock go with it, where it should be located, the importance of water in the sweat house, the importance of roots in the sweat house. I think people tend to think of it as an abstraction that they can extract.

Gerard Baker: When I worked in Montana, for example, I used to go up into the mountains and part of my job was to go around the Beartooths. And I would start finding modern medicine wheels and all that kind of stuff and to me that’s wrong. We shouldn’t be inventing that stuff. There’s a lot of people out there who are searching and I guess that’s good, in that way, that they need to find something. They need to find their own medicine, they need to find their own way, if you will. But a lot of times they’re borrowing from us, and they’re kind of getting out of hand.

Peter Coyote: So where does this leave us? How do we balance the complexities of culture and belief and science when it comes to the healing arts? What do we take from each other, and what do we leave behind? We turn to humanities scholar Clay Jenkinson for his final thoughts.

Clay Jenkinson: Thomas Jefferson was so skeptical of the best medical practices of his time that he declared: “Whenever I see two doctors gathered in a public road, I look up to see whether there are turkey vultures flying overhead.” Jefferson told one correspondent that the best way to stay healthy was to avoid hospitals at all costs. There’s no question that the Native American medical procedures at the time of Lewis and Clark were at least as beneficial as their white counterparts. In that respect, Indians were more civilized than their Enlightenment guests. Indians had been at home in the Western hemisphere for many centuries and they had, through trial and error, learned the medicinal properties of plants. In fact, medicine is one area in which Lewis and Clark might have learned a great deal from the Indian tribes they encountered, if they had been listening. Indian contributions to modern medicine include quinine, aspirin-related tree bark extracts, laxatives, painkillers, antibacterial medicines, petroleum jelly and other things. Echinacea is now one of the five leading medicinal herbs sold in the world. Without quinine, there could have been no Panama Canal.

Western medicine has made tremendous advances since the time of Lewis and Clark. Today, Charles Floyd would have survived whatever killed him at Sioux City, Iowa. Medical procedures that we now take for granted—kidney and heart transplants, CAT scans, Lasik surgery—would have been incomprehensible to the even forward-looking men of the 18th century. They lived in an age before antibiotics. Four of Jefferson’s six children died in infancy. Today, they’d all be alive. Just think about that for a minute.

We are all the beneficiaries of modern medicine, including Native Americans, that is, when they have access to the
medical procedures that the rest of us take for granted.

Meriwether Lewis was openly sarcastic about Native American medicine in the spiritual sense of the term. Enlightenment men like Lewis sought to build a wall of separation between medicine as a healing science and medicine as a spiritual art. Today, we are not so sure.

As the 21st century begins, the medical community is less smug about its own paradigm than it was 50 years ago. Industrial medicine is slowly opening its mind to concepts of holism and non-traditional healing. We understand that laughter plays a role in healing as does the attitude of the patient. Prayer seems to make a difference, and song, pets, sometimes even the color of the room.

In his book *Quantum Healing*, Deepak Chopra has gathered evidence to suggest that there is a spiritual component to medicine that cannot be discounted. Just as there is a quantum element to physics that defies traditional mechanics, so, says Chopra, there is a quantum factor in healing that is unmistakably there but hard to measure. Medical miracles, he says, are really just quantum healing events that we cannot see because our consciousness is not yet highly enough evolved. In Dr. Chopra's view, American Indians had a wiser system of healing than their white counterparts. They understood that healing has both a physical and a spiritual dimension. What they lacked were certain technologies. Those technologies have now proliferated beyond all expectation.

The future of medicine, Chopra believes, will be in applying Western gadgets in sometimes non-Western ways and in engaging in the healing practice that no CAT scan can see. The next centuries may bring about a synthesis of white and Indian concepts of medicine: the remarkable technological capacity of the white medical community and the holism and intuitive understanding of Native Americans. Just as there has been what has been called a Tao of physics, so there may turn out to be a Waukon or Manatu of healing. The two cultures are finding common ground. Meanwhile, I'm taking my Echinacea. For the Unfinished Journey, I'm Clay Jenkinson.

Peter Coyote: I'm Peter Coyote. This program was produced by Oregon Public Broadcasting and Lewis & Clark College. The producer is Eve Epstein, audio engineer Steven Kray, associate producer Sherry Manning. Original music composed and conducted by Aaron Meyer and Bill Lamb. The executive producers are Clay Jenkinson and Morgan Holm. Major funding provided by the National Endowment for the Humanities. Additional funding was provided by the National Park Service and the Jonsson Family Foundation. Support for this program also comes from this station and Public Radio International stations and is made possible in part by the PRI Program Fund whose contributors include the Ford Foundation and the John D. and Catherine T. MacArthur Foundation.

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