



**Transcript of Interview of Dr. Deena Zimmerman,**

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**Atara Eis:** Many are wondering: if we're told to shelter in place, not to go to the supermarket, don't even the doctor unless absolutely necessary, then how are we keeping women's mikvaot open? So much of what we read seems to reinforce that there is more we don't know, even if we know a lot about COVID-19's cousin SARS, and distant cousin influenza, there's so much more we don't know about this virus than we do. If we have gone so far as to shut down all communal religious activity, given the sacrosanct value of protecting human life, why are we keeping our women's mikvaot open?

To understand this more, I interviewed Dr. Deena Zimmerman. Dr. Zimmerman is a member of Israel's Ministry of Health's Public Health Service. What that means is she is intimately involved in the public health decisions that are being made in the State of Israel. She is also a veteran Nishmat Yoetzet Halacha and runs [www.yoatzot.org](http://www.yoatzot.org).

**Atara:** So Deena, welcome. Given the halachic imperative to protect lives at all costs, why are we keeping the mikvaot open?

**Deena Zimmerman:** The answer is very simple. Because it is safe to keep them open when they are maintained and operated under the proper conditions.

**Atara:** Explain to us, please- why is it so important to work with experts in public health? Why shouldn't we just consult maybe a regular epidemiologist or virologist to make our decisions about the mikvaot?

**Deena:** Because public health is its own specialty that is designed for dealing with issues of populations, not just with individuals. Dealing with outbreaks, dealing with epidemics, is exactly what this specialty is trained to do. It's also a multidisciplinary specialty, which means that one has access to specialties in public health. Not only physicians, also people who are experts in environmental health, water safety, and other specialties than come in and can help answer our questions in the best possible way.

**Atara:** So, talk to me about the different types of tools and techniques that public health experts use in containing any kind of outbreak, epidemic, pandemic.

**Deena:** So many of these are probably words that you have heard before. The simplest one and the most basic one is hygiene. Most diseases are spread between people, and basic hygiene can make a difference in how it's spread. There is also the issue of containment, quarantine, and social distancing.

**Atara:** And how would these different tools apply to a mikveh setting in a way that keeps mikvaot within the bounds of public health concerns?

**Deena:** First of all, proper maintenance and cleanliness of the mikveh is preventing women from *many* different diseases that can be passed from woman to woman, and this is something that should be done at all times, not related to Corona as well. Because of the Corona pandemic, we've added the issue of making sure that women who are sick, in quarantine, have symptoms that may turn out to be Corona should not be using the mikveh, and by keeping sick people out, we are keeping other people from having the possibility of being sick. Now that the epidemic has gotten more serious, we are also using the tool of social isolation, keeping people away from each other, and if you are not close enough to the person to be able to have the disease spread to you, primarily by droplet spread, which is about two meters, six feet, then you shouldn't be able to get sick from that.

**Atara:** But Deena, I keep reading about asymptomatic carriers. People have even raise the theory that people might be more infectious before they actually show symptoms.

**Deena:** People have been raising the possibility, but this is not what we have been seeing clinically. Many of the studies that talked about the viral load, that an asymptomatic person may have, if you read them carefully, aren't really talking about asymptomatic people; it's talking about minimally symptomatic people, and that's why we're being very careful that if a woman has signs that aren't necessarily sounding like corona, she should not go to the mikveh that night, and she should just wait a day or so to see, "oh, it really just was a cold, it just went away," and not "oh, this was really the beginning of something else." That's yet another level of preventing people from getting sick. We also have to realize that the amount of virus the person has doesn't necessarily mean the amount that he is spreading and getting to other people, and by keeping social distancing, even if you are in the same universe as somebody who has the virus, then if you are far away enough from them, they are not going to spread the virus to you.

**Atara:** Ok, so you are most concerned about droplet spread, that is what you are saying.

**Deena:** Yeah.

**Atara:** So, there was a study released by the Ministry of Health last week that said that 1% of patients were infected at the mikveh. What does that mean?

**Deena:** So, to understand that study, one actually has to look at the actual numbers that they were talking about. The authors of the study, or those who published the study because the full study is not what they've sent around on the internet; they've just sent around one table, but even the authors of this point out that these numbers reflect ***what was happening before social isolation and other kinds of restrictions were being put in place***, and at that point they found that there was ***one case of a mikveh where spread happened***. It says nothing there in terms of it happening specifically from the water. ***Most likely it had to do with spread from person to person being in the same place. It also doesn't mention if it's a men's mikveh or a women's mikveh, and there's a very big difference between the degree of hygiene that is usually kept in those kinds of mikvaot.*** For that reason, all the men's mikvaot in Israel have in fact been closed, while the

ministry is keeping open the women's mikvehs because we really understand it's not the same thing. Also, the preparation for using the mikveh between men and women is so different. Men come in, get undressed and go in. Women are coming in in the cleanest possible fashion a human being could ever be. It also is really important to realize that they rounded off the numbers. There were 245 cases in that study. If you do the math, it actually comes out to .8%. And I think the most important thing is that the use of this study, by taking that 1% and extrapolating it to the number of cases we have now is not legitimate because we're only talking about one case out of 245 in a totally different situation, so I think that study is interesting, but doesn't really contribute anything to the mikveh issue. It does contribute something to the shul issue because there were I think 29% close to 30% that happened in synagogues, and that is why the community policy to close shuls, as painful as it has been and as difficult as it has been, is so crucial in preventing disease spread.

**Atara:** Got it. So in light of what you just explained, can you explain to me why in my home town of Efrat recently, there was a case where a woman immersed and then was later found out to be a carrier. This caused, understandably, some panic. That's putting it lightly. All the women who had immersed that night were told to quarantine. Why were they told to self-quarantine if the mikvaot are safe?

**Deena:** Because there the concern was not the mikveh water. There the concern was women who had been in the same space with this woman at the same time. Because at that point there was no way of knowing exactly what time this woman came out and other women came in, the decision was made to do it the entire night. Now, when we're working by an appointment system, then that scenario should not repeat itself. There may still be some people who need to self-quarantine, but it would be one or two women who might have overlapped with her coming in, and not everyone who used the mikveh that night. I think it's also really important to realize what the tool of quarantine is. Being put in quarantine doesn't mean you are necessarily going to get sick, and many of the people will not and did not get sick, but they have enough of a reason for us to be concerned that we want to stop it and take extreme measures, mostly to make sure they're not going to pass it on further.

**Atara:** Got it. So Deena, why are you so convinced mikveh water itself does not pose a danger?

**Deena:** Because the Coronavirus has been around already for over three months. Many studies have been done on the virus itself. ***The virus itself is not such a sturdy virus, and we know it is killed by chlorine, bromine, and bleach, and therefore I am convinced that the amount of chlorine that is put into a mikveh standardly, because that is how we keep water that is used by more than one person safe, has standards, and those standards that are used routinely, are sufficient and more to kill the coronavirus.***

**Atara:** It's really insane that such an unstable little virus is wreaking such havoc on this universe. And so what you're saying, just to be very clear- we know this about this current SARS/COV-2, and it's not based on stuff about Cousin SARS-1?

**Deena:** No. The things that I'm saying about this virus being able to be killed by chlorine is relevant to THIS virus. It's also relevant to the other virus.

**Atara:** Then why are public pools closed?

**Deena:** A public pool is a totally different situation. **The main reason decisions were made to close public pools is because they are a place where people congregate, and we want to close places where people congregate. A mikveh, working by appointment, that the women are not going to be too many people there at the same time, is no longer a place where people congregate.** Furthermore, any studies that are done about public pools or public baths are not relevant to mikvaot because many of you have used pools, there's a nice sign there that says please shower before going into the pool, and some people do, some people don't, and even if they do it's like a nice rinse-off, that's completely different from the amount of preparation and scrubbing that women do before they use a mikveh.

**Atara:** Got it. I learned a new word, it's called fomites- that's a fancy word for surfaces. Could you talk to us about fomites? It's not just droplets, right? Those droplets can go onto those fomites. How do we prevent spread from fomites?

**Deena:** The way that we prevent spread from surfaces, and I know there have been a lot of studies out there that have shown how much the virus can live on plastic, on wood, etc., but that's not really what's relevant in terms of causing disease. Because in order to spread it that way, one has to touch it, not wash his hands, and then touch the respiratory area. So even if they are there, there are things that can be put in place to prevent that from spreading disease. And those things are hygiene, washing your hands, wiping down surfaces, not touching your face, and that's good practice in a time of an epidemic, we want to do every little bit we can to prevent the spread, but ***the main way it is being spread is by droplet spread, and the way to deal with the fear of surfaces, is not to give in to the fear, but to be more careful with hygiene than we might be in our day to day life.***

**Atara:** That is why at Nishmat's special portal on the Novel Coronavirus and Taharat Hamishpacha we offer a lot of suggestions of how to further minimize any kind of contact with fomites. But these are suggestions, right? These are suggestions to protect, but not that there is an inherent danger here. What I'm hearing loud and clear from you is that social distancing and hand washing are the number one ways to prevent contracting the disease.

**Atara:** So, what if the mikveh attendant did not wipe down the surface when I get to the mikveh- so what if I touched the sink in the prep room, and the person before me was positive and she touched that sink also, and now I have the fomite and I didn't wash?

**Deena:** So first of all, hopefully you washed your hands, because that's what we're saying to do. You've also gone into the mikveh water, which will wash it off, and the amount that was probably left there was a small amount of viruses, and we have to keep into consideration what it is that makes us sick. ***One virus particle is not going to make a human being with a normal immune system sick.*** It takes a certain amount of viral load to make them sick. We don't yet know the exact number, and it's probably not one number; it's a matter of balancing the number of viruses and our immune system. ... [there are] viruses on surfaces that we are touching. We have bacteria. We are not living in a sterile world, but we are designed to be able to deal with it. So, a small occasional maybe I touched something, the chances of getting sick are extremely low. The way to keep that in my power and do what it is that I can is wash hands. I touch something, I wash my hands. I'm not sure they washed down the surface and I'm really nervous? Wipe it down yourself and wash your hands. I

think the issue of surfaces is something that can certainly be brought under control, and one can immerse in a way that makes one can feel comfortable. The degree that you want to take our advice about different ways to do it will depend from person to person. But the main emphasis we should be putting is the issue of social distancing, making appointments, and basic hygiene and cleanliness.

**Atara:** But if someone is immunocompromised, there system may not be able to handle even a smaller viral load.

**Deena:** That is why women who are immunocompromised should be talking to their doctor before they go out, before they go to the supermarket and before they go to the mikveh. It will depend from woman to woman. There are different levels of immunocompromised, so everything has to be decided on an individual level. One of the possible suggestions might be for the woman to be the first person to immerse, and therefore the chances of anybody possibly touching anything is even lower. This is the kind of advice we often give to women who are immunocompromised not related to Corona. Just about the possibility of picking something else up in any public place, not just the mikveh, but this is something that people who are worried about their immune system should be discussing with the doctor. It's very important, though, that the doctor understand what really goes [on] at a woman's mikveh, particularly today. A mikveh is not the same as a public pool, and decisions about what to do should not be based on swimming pools; it should be based on the understanding this is only clean women who are going into well chlorinated water; each woman immerses by themselves, it is not a group immersion, and the water is kept with chlorine to proper standards.

**Atara:** The next issue of concern here is there was a letter to the editor [in New England Journal of Medicine](#) which has raised alarm bells for many. They're wondering about whether the humidity in the mikveh room might lead to an even greater concern about "airborne-like conditions"- that means that an infected droplet might hang around in the air longer than in other non-humid conditions and then transfer disease. How would you address this concern?

**Deena:** First of all, reading that letter, one has to realize this was experimental conditions. They purposely took the virus, took a machine, made steam, put it in a room to see how long it was going to live there. So that is not necessarily the same thing as one person who may have given one cough or touched one surface. It can't be compared to anything in the usual day to day. The only thing in real life that is somewhat similar to that is hospital ventilators, and that is something that things are being put in place to prevent that aerosol spread in terms of protecting health care workers. But in terms of a regular mikveh, I'm not concerned because the viral load here is so [small]. And also, it's the amount of time that the woman is going to be in there. Because in order for you to get it from the air, which once again in terms of real life, where we're seeing it spreading, that does not seem to be the main place, certainly outside of a hospital setting, but if you're in and out in ten minutes, the amount of time you're exposed to air is much less, and to make the possibility lower, then just to work on ventilation of the area.

**Atara:** So what do you mean, like opening a window?

**Deena:** I mean like opening a window, and I realize that some mikveh areas exactly don't have a window there, so open a window in another room, and open a door between woman and woman. By

spacing women out, we're giving time for ventilation, we're giving time for cleaning, and even if the virus lives longer because it's humid, it's still not long enough and I'm not going to be in there for long enough to be worried about that making me sick.

**Atara:** Based on this, and our discussion of viral load from before, I'm actually much more concerned about the mikveh attendant's health than the woman who is very quickly getting through that prep room because she's done all her prep at home- again, see our website for all of our recommendations, and then she's very quickly entering and exiting the pool room. I'm much more worried about the mikveh attendant.

**Deena:** There is reason that communities should be thinking about what's happening with their mikveh attendants. First of all, making sure that the women who are coming to the mikveh are not women in quarantine. Putting a sign on the door if you are in quarantine, do not come. Empowering the mikveh lady to tell women it sounds like you might be sick, please come back tomorrow. Make it very clear in our communities who is not allowed to use the mikveh- doesn't matter what the personal circumstances are- that is probably the most important thing that we are doing to protect the mikveh ladies. ... the fact that she is only seeing one woman at a time helps to some degree because it's not a bunch of people coughing in each other faces. When she is taking care of the woman herself there are things that should be put into place to make the risk less. There is no reason she needs to be close to the woman as she's going down. Her role is to see that her hair goes under the water. This can be done from a distance of 2 meters. All the things that mikveh ladies do that are based on custom, such as checking her back, are not necessary from a halachic point of view, and therefore for almost all women this can be a touch-free process. In the case where she needs to assist a woman who really can't walk down the steps or something, then providing her with gloves and a mask and some sort of gown for those specific circumstances is another thing we can do to protect her. Keep the mikveh well ventilated as I said, and maybe in very busy mikvehs, think of the possibility of taking shifts. And therefore the amount of hours that she's staying there will be less per woman. I also think there is a point to think about who we are using as mikveh attendants at this point. We should be using younger women, women who don't have underlying medical conditions. Think about who should be mikveh attendant and protect her in that way.

**Atara:** Would you even say she wouldn't need to be in the pool room herself? She can be standing in a separate room, and as long as she can see the woman's hair under the water, that would suffice. She would be standing in a different room.

**Deena:** Absolutely in most cases, except for those cases that women need physical help to get down the steps.

**Atara:** So today's news, we heard there was a mikveh attendant in one of the cities in Israel who was found to be a carrier. What I understand is, there wasn't yet an appointment system, and all of the women were told to self-quarantine who had been exposed to her; I am very hopeful that that city now institutes the now mandatory appointment system and that could have avoided that amount of women having to go into self-quarantine.

**Deena:** Correct, and I think another thing that comes out of that case which I don't know all the details about, but we need to make sure that women who are working as mikveh attendants- if they

are sick, they have the right and they should be calling in sick, and they should not feel “Oh my gosh, I want to do my job”; this is a time, really if you are not feeling well, better safe than sorry.

**Atara:** There’s definitely a lot of education that needs to go on now to bring as many places into compliance as possible, that’s for sure.

**Deena:** Which by the way is going to help in terms of preventing lots of disease spread, so it’s a wonderful thing, so something good might come out of this [pandemic] as well.

**Atara:** Be’ezrat Hashem. Could you see recommending a woman wearing a mask until right before her immersion and put another one on right after?

**Deena:** Based on where things are holding at this point, that does not seem to be necessary because once again the fear is not airborne spread. I think one of the things that the mask does a little bit is it reminds you not to touch your face and your mouth. But I think that’s something at the level of individual choice. If we get to the point where the recommendations change that everybody has to wear a mask in a public place, then it’s very important to listen to whatever guidance is being given at that point, but until that point, I would leave it to the individual woman. She wants to do it, let her do it. She doesn’t want to, I wouldn’t make her. *\* interview was filmed right before Netanyahu announced mandatory masks in public.*

**Atara:** Given all this, would you recommend that a woman who is on hormonal contraception space out her mikveh visits, obviously assuming her physician approves, by taking extra active pills?

**Deena:** I think that’s really an individual choice. The woman herself may decide I just don’t want to deal with this, give me a chance to deal with it less, that’s perfectly fine; I don’t think I would say that needs to be a public policy because the mikveh is not an unsafe place to go; it should be individual decision, not policy for everybody.

**Atara:** It’s just to prevent her from needing to go out of the house more than she has to.

**Deena:** Yeah.

**Atara:** Any advice for highly trafficked mikvaot? How would a mikveh that sees maybe 40 women a night really maintain these intense new standards?

**Deena:** I think it’s a matter of advanced planning. Making appointments makes a real difference. Women who are preparing at home and coming down and just dunking, can get in a fair number in an hour even with the strict guidelines. I think there is room for halachic work here in terms of making it possible for women to immerse as early as possible. Even though we very often wait until actual nightfall, there is room for slightly earlier than that, and there’s room for halachic discussion about the possibility of using the mikveh the next day on the eighth day.

**Atara:** So then you’re spacing out and creating more room for more women.

**Deena:** Correct.

**Atara:** Which might be necessary in a place that maybe sets a curfew anyway.

**Deena:** Also true.

**Atara:** What about if there really is a serious local outbreak. Would you potentially recommend closing the mikvaot in such a community?

**Deena:** I think that's something that needs to be dealt with, with the local authorities knowing the details of that specific case. But if it turns out that there is an outbreak and these guidelines are not being followed, then I most definitely would close the mikveh until such point that they are willing to run it in the way that it needs to be run at all times and all the more so now.

**Atara:** You've really explained to us how the measures taken by responsible rabbinic organizations – I know of the ones in the United States, and individual mikvaot in the United States, and followed by strict tightening of measures by Israel's Ministry of Health, they really do support keeping women's mikvaot open to the public, under these strict standards. What if a woman goes and sees that the mikveh is really not keeping to everything Nishmat told me it should be keeping to?

**Deena:** *Yet another advantage of making appointments, is it gives somebody the ability to ask some of these questions the night before. If she's not comfortable with the answers she gets, to look for other alternatives.* If for some reason she wasn't able to do that, and she shows up at a place that really makes her uncomfortable, then she should not immerse and try to find another solution, even if it means being slightly delayed.

**Atara:** Given all of this, is it still legitimate for an individual woman to decide that she might want to delay immersion in the current pandemic?

**Deena:** I think under all circumstances, it is legitimate for a woman to delay mikveh if she is not comfortable with what is going on. It is important, though that she realizes what the consequences are, in terms of prolonging the time she's not able to have physical contact with her husband. But I think it's also *very important that we're keeping the mikvaot open for women who do choose to use it in our communities. It's very important to leave the choice open, and what an individual woman decides, that's her right.*

**Atara:** Deena, thank you so much for your time.

**Deena:** You're very welcome. Let's end with hoping that- מנע מגיפה מנחלתנו, אבינו מלכינו, [Our Father, our King, prevent this plague from our lot.] May this pandemic end quickly, with as few victims as possible, and may Pesach indeed be חג גאולתנו, the time of our redemption.

**Atara:** Amen. Thank you so much.

**Deena:** You're welcome.