

Ayurvedic Inheritance of India
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Module - 3
Healthy Living

Lecture - 7
Food and Drinks

The topic of today's lecture is food and drinks. This is an extremely important topic in Ayurveda, and the longest chapters in the great texts of Charaka, Susruta, they all relate to food and drinks; at least, as important as formulations, if not more important. Some of you may recall, when the Chinese pilgrim Hiuen Tsang came to India, he had observed that, for most of the illnesses, they are not treated with formulations or medicines in the beginning; they do not even go to the physicians. They are managed at home, usually with diet; this is what he says; if that does not succeed in a week, then, they go to the physicians, who treat them with formulations; something like that, he has observed.

So, this is a long tradition in India - diet, drinks, food items, all these were a part of our health care management, swasthavritta, so that, you remain out of trouble, and you approach the physicians only when it is needed. This is something very important, today it has a message for us. If for even small, trivial illness, you keep on going to physicians and hospitals; in other words, medicalising our day to day life; because, we are paying a very heavy price for it, not only financially, but we also lose our autonomy as individuals. This is a very profound lesson. But in India, therefore, food and drinks, much of what we will be saying will be focused on the patient, not for the general public; but there is always a focus on the patient, patient's food, patient's drinks, even though other things also may come in.

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To give you an idea of the contents of this lecture, one is food, the classification of food with examples from different groups; they are classified into nine or ten groups and each group has many sub groups; vegetarian, non-vegetarian etcetera. Then, the most recommended items among these, because some of them may not be available, so what should be the preferred items from these, there is another list. Then, food is not eaten raw; most of them will have to be cooked, and cooked food has its own classification, because it transforms the food. Drinks, when you are thirsty, you have to drink, but after meals, there is postprandial drinks; that is also very important; separate category, especially, when we are dealing with patients. And, physical properties of food articles; that is a very important area, on the basis on which you choose unwholesome and incompatible foods; very important subject in Ayurveda; how incompatible food can create all kinds of problems, health problems, diseases, sometimes even cause death. So, all those are listed. Then, a very important classification of food on the basis of rasa, or taste, and how it correlates with the panchabhutas - that is a most important aspect of food.

Then, etiquettes for dining. Food is not only a biological necessity to survive, but you have to enjoy the food; that is part of the consideration in food and drinks in Ayurveda. So, there is an etiquette for dining, how to sit down, what kind of utensils to use, what sequence in which we should eat, all these are mentioned. And finally, there is something

about food safety; that also is the physician's responsibility. So, we will be covering all these items in this lecture.

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FOOD

- **Body is a product of the food consumed. It nourishes the dhātus, maintains their equilibrium and sustains the digestive fire. Charaka and Suśruta devoted many chapters to their discussion.**
- **All food articles, like dhātus in the body, are composed of all five bhūtas, but the dominance of bhūtas in food articles of different tastes varies.**

(Tables 1 - 2)

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Now, body, as we have discussed earlier, constantly depletes; that shareera in Sanskrit, it really translates, the etymology is something, body which deteriorates every single day. So, when there is a constant depletion, there is a need for constant replenishment that has to be supplied what is lost, and that is the basic function of food. So, we are made up of the food that we eat; and, that nourishes the dhatus which are depleting and it maintains the equilibrium of the body; otherwise, if there is constant depletion, with no replacement, in famine time for example, people become under-weight; they become very sick, you have to remember the photographs during the precedence of war; if you look at the pictures, you can see what happens; depletion of the body, there is no replacement. So, that, this equilibrium has to be maintained.

And, the digestive fire; if you, unless you keep on tending that fire, the fire will die out; so, therefore, that is another reason why food has to be supplied; and there are, as I mentioned, several chapters dealing with these, long chapters in this Ayurvedic text dealing with the food and drinks. And, all food articles, like the dhatus in the body, they are composed of all the five bhutas. This is a very important consideration; and, these five bhutas, the dominance, they are not all equally represented; that is, ether, air, fire, water, earth, these panchabhutas, they constitute the body; they also constitute the food

articles; but they are not all equally represented; there is variation in the proportion. Now, that determines...So, for example, fire may be the dominant element in that particular food article; that determines the properties of that food, when we consume it. It influences the body's response to it.

So, classification of food based on the dominance of bhutas, that is a very important consideration in choosing them for therapy, or even for nutrition. And, the taste also is connected; there is a direct connection between taste and bhutas; we will have tables to illustrate this, because you cannot choose a, a particular food article by looking at it; you do not know, whether it is fire which is dominating, or water it is dominating; you cannot tell that, but taste you can. Now, taste is an indirect indication for which bhuta is dominant. So, there is a connection; we will mention that as we go along.

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FOOD

- From the dominance of bhūtas, food articles are called earthy (parthīva), watery (āpya), fiery (āgneya), airy (vāyavya) and ethereal (akāsātmaka). Parts of body and tissues derived from these categories of food articles were identified – essentially based on their physical properties such as heavy/light, solid/liquid, hot/cold etc.
- A physician who lacks detailed knowledge of food, its varieties, preparation and functions can neither protect the health of the healthy nor treat the illness of the patient (Suśruta).

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Now, based on this dominance, food articles may be dominated by earth, which is parthiva, which is heavy; watery, apya; may be fiery, which is agneya; airy or vayavya; or it may be ethereal, become lighter and lighter. So, the heaviest is earth and as we go along, ethereal, it is very light. Now, parts of the body and tissues derived from these categories are also identified for our purpose here; heavy, light, solid liquid, these properties are important in the choice of the food articles, especially for medical purposes. And, when Susruta correctly says here, he has repeated that, more than one

place, a physician who lacks detailed knowledge of food, its varieties, preparation and functions, can neither protect the health of the healthy nor treat the illness of the patient.

So, this is a very important statement from no less an authority than Susruta, the importance of food, what is nowadays called pathya. In fact, I know senior Ayurvedic physicians of the traditional method of training, many of them believe that, with pathya alone, we can treat many of the illnesses successfully. There is no need to use formulations; they go to that extent. That underlines the importance of this subject of food and drinks.

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CLASSIFICATION OF FOOD BASED ON PRIMARY TASTES (RASA)		
TABLE 1		
The table presents a classification of food categories based on their primary tastes, dominant bhūtas of each category and samples. (Tables 1 - 2)		
Groups	Dominant Bhūtas	Sample Substances
Sweet (madhura)	Earth and Water	Milk; ghee; muscle fat; marrow; śāli rice; barley; wheat; black gram; sugar cane products.
Sour (amḷa)	Earth and Fire	Dāḍima, āmalaka, mātuluṅga.
Salty (lavaṇa)	Water and Fire	Saindhava, sauvarcala, vida.

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Now, classification based on primary taste. I mentioned earlier on that, the dominance of bhutas are very important, which we cannot determine by looking at it. So, one way for us to determine is taste, which is easy to do. So, here, sweet. There are 6 primary tastes in ayurveda, with so many sub-tastes; 63 varieties are there; but if you take sweet taste, or madhura, it is dominant bhutas in that is earth and water. And, you can see the examples given, milk, ghee, muscle fat, marrow; all these are given with dominant taste is madhura, and that dominant bhutas.

So, if you are taking something, let us say milk if you are taking, you are taking something which has the dominance of earth and water; it is a heavy element. Then, we have sour, which is the next. The dominant bhutas there are earth and fire, which is less heavy than the sweet and examples given, fruits like dadima, matulunga etcetera. Those

are, it is less heavy than sweet. Then, the next is salty, or lavana, water and fire; and here it is, there are salty, vidas, saindhava, or rock salt, different types of salt, but the dosha dominance is different.

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CLASSIFICATION OF FOOD BASED ON PRIMARY TASTES (RASA)		
TABLE 2		
Groups	Dominant Bhūtas	Sample Substances
Pungent (kaṭu)	Air and Fire	Mūlaka, laśuna, śīgru.
Bitter (tikta)	Air and Ākāśa	Guḍūcyādi, haridrā, kaṭukā.
Astringent (kaṣāya)	Air and Earth	Nyagrodhādi, triphalā, āmra.

➤ In practice, six primary tastes do not appear in isolation. Their combinations are believed to be sixty three, sixty two combinations are used in treating patients, sixty third combining all six rasas is appropriate for the healthy.

Then, we come to three, lighter. We are progressively going to lighter and lighter. Pungent, which is katu, air and fire and mulaka, lasuna, garlic, those are examples of that. Then, we have bitter, or tikta, air and akasa, those are the dominant elements and guducya, haridra, etcetera, these are examples of bitter. And, astringent is air and earth and here again, triphala; these are not food items, these are items used for making drugs. So, there is, very often you will find, these are oriented towards patient care. So, many of these are not, even though they are called food, there is not much distinction, when it comes to food and drinks for patients between food and medications, formulations; cooking is very similar.

So, you know, they are almost interchangeable; that is why examples often, they are not food items to be consumed regularly, but they are used in making formulations. So, six primary tastes never appear in isolation; there is nothing called katu, bitter, only bitter, nothing else, that is not there. All the bhutas will be there, but the dominant, that is what this indicates. And, their combination, there are 63. These are 63 combinations of taste; these are essentially tastes of various drugs, formulations which have made; they have different tastes. And, there is only one 64, where that is the, what we all consumed as

normal food, that is the, for ordinary people's consumption, but all the others are for medicinal formulations.

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EFFECTS OF THE TASTE OF FOOD (RASA) ON THE BODY	
Each primary taste was believed to produce effects – positive and negative - on the body. (Tables 3 - 4)	
TABLE 3	
Groups	Effects
Sweet (madhura)	Increases blood, flesh, fat, marrow, semen; cold and heavy.
Sour (amla)	Enhances digestion, builds body, counters vāta; warm.
Salty (lavana)	Digestive, counters vāta, settles kapha; warm.

Contd...

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Now, if you look at the effects of these tastes, and tastes, we have seen, they are dominated by certain bhutas. What is the effect on the body, that is what we are concerned with here. So, if you look at sweet, same order we will go, it increases blood, flesh, fat, marrow, semen and it is cold and heavy. And, these are directly derived because that cold and heavy it comes from the dosa dominance, because it is earth which is dominating, so, it is heavy. Next is sour, or amla; enhances digestion, it builds the body and it is warm. Salty is digestive; it counters vata, settles kapha, warm. So, they all have effects on the body, on dosas.

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EFFECTS OF THE TASTE OF FOOD (RASA) ON THE BODY

TABLE 4

Groups	Sample Substances
Pungent (kaṭu)	Stimulates digestive fire; warm.
Bitter (tikta)	Sharpens appetite, enhances digestion; cool, light.
Astringent (kaṣāya)	Restores harmony among tastes; dry, cool and heavy.

➤ These effects guided the selection of appropriate food items for patients and others.

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And then, you come to pungent, katu, it stimulates digestive fire; it is warm because agni is dominant there. And, we have bitter, tikta, sharpens appetite, enhances digestion; again, agni is part of that; cool, light. So, many of these actions which are shown on the right side, the sample substances, that activity really owes to the dosha dominance, that is what we have to understand. And astringent, kasaya, it restores the harmony among all the tastes; it is dry, cool and heavy.

Now, these effects are guided. They guide the selection of the appropriate food items for patients. Suppose, you want to give a digestive, we want to stimulate the deepana, then, you know which items to select. Agni has to be a part of it; so, this taste is appropriate for it, so, you choose. So, that scientific basis for choosing these, based on the dosha dominance, which we detect by the taste.

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PRINCIPLE OF NOURISHMENT OF DHĀTUS BY FOOD

- ✓ A basic principle of Ayurveda taken from vaiśeṣika system of philosophy was samānya and viśeṣa (generality and particularity). This postulated that “similar substances on union will gain in bulk and strength; but dissimilar substances on union will become attenuated”.
- ✓ This was the guiding principle in the choice of food articles for the patient's appropriate diet. Eg. Flesh is nourished by flesh; blood by blood etc., when such articles are not available or not suitable, substitutes could be used. Eg. milk and ghee to increase semen.

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Now, the principle of nourishment of dhatus, the basic principle is taken from vaishesika system; we referred to it earlier. In the vaishesika system, there are two terms samanya and visesa; and vaishesika, it is used in the philosophic sense. Samanya, or generality, that is a class which shares a single property; that marks it out as a separate class. But there is visesa is another property, shared by another class, which makes it different from the first class; that is visesa. This is a philosophic classification of various categories; that is the sense in which vaishesika system uses this; but what Ayurveda has done, it has taken these terms from vaishesika, samanya and visesa, but it is used in a concrete sense; that is substances which share a property, let us say, a particular dosa dominance; now, that is called samanya; and, another class of substances which differs, thanks to some other property, that is visesa. So, what follows, because of this concrete transformation what was abstract in philosophy, if you put these two substances, both belonging, having the same property, if you put it together, then, it adds to the bulk, it grows. This is not there in vaishesika philosophy. But if you take two substances, one having a property and the other substance is a negative, is opposite to this property, if you put it together, then, it diminishes. Instead of growing it diminishes. So, that is visesa. So, this becomes a concrete concept in Ayurveda.

And, the importance is, all the diseases which, we are mentioning that here also, similar substances on union, it gains bulk; that is in Ayurveda. And, dissimilar substances, if you combine, then, it diminish. So, this is the concept of samanya and visesa in Ayurveda.

This is a guiding principle in choosing food articles for the patient. So, in patient, like flesh, you have to nourish it by flesh; nothing can be so similar.

So, you have to replace it by flesh, or blood by blood; blood replacement, if blood is depleted, you have to give blood; that is the samanya principle; but sometimes, like flesh itself, it is not easy to get that flesh; or patient may not want to take it; all kinds of difficulties may be there in practical terms. Then, Ayurveda says substances need not be identical, but there may be substances with very similar properties. They also will do the same thing, because they share the same property and the example given is semen; if you want to increase, milk and ghee, they have the similar properties in terms of dosa dominance. So, that can be given for a patient.

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PRINCIPLE OF NOURISHMENT OF DHĀTUS BY FOOD

- ✓ **Apart from the detailed knowledge of various food articles listed in the general classification, a physician had to be fully conversant with their properties based on primary tastes and dominant bhūtas, and whether they would add or subtract from the dhātus.**

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Now, apart from the detailed knowledge of various food articles listed in this general classification, a physician had to be fully conversant with the properties of the primary taste, the dominant bhutas; that is the crucial thing based on which we make the selection for a particular diet, designing a diet.

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CLASSIFICATION OF FOOD BASED ON EDIBILITY

Four categories were recognised.

- ✓ **Soft food (asita)**
- ✓ **Drinks (Pīta)**
- ✓ **Lickables (Līḍha)**
- ✓ **Chewable (Khādita)**

This classification was used in Buddhist India too. It has a bearing on the making of medicinal formulations for patients with diverse tastes.

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Now, the classification of food in terms of actual consumption can be soft food, drinks, lickables, chewables. These are the four types of, in terms of actual consumption. This was used in earlier on in Buddhist India also. And, this has some bearing on making the medicinal formulations. Some patients, for example, may not be able to chew; there you have to design it as a lickable, because he does not have teeth, or some problem with the dentition. So, you may have to give a lickable form. If a patient has difficulty in swallowing, you may have to give it in a liquid form. So, you have to design the formulation of, the form in which you want to administer, based on this. So, these choices are available.

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GENERAL CLASSIFICATION FOOD
(According to Suśruta)

- The tables (5 – 9) on all varieties of food include groups, sub-groups and only examples: Suśruta's text contains the full lists of food items, their effect on doṣas and other effects on the body.

TABLE 5
Food: General Classification


Group	Sub-groups
1. Cereals (dhānya)	A. Śāli B. Kudhānya C. Mudga D. Māṣa

Contd...
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And, the general classification of a food items, I have taken Susrutha's, which is a little less detailed than Charaka's.

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Food: General Classification
CEREALS



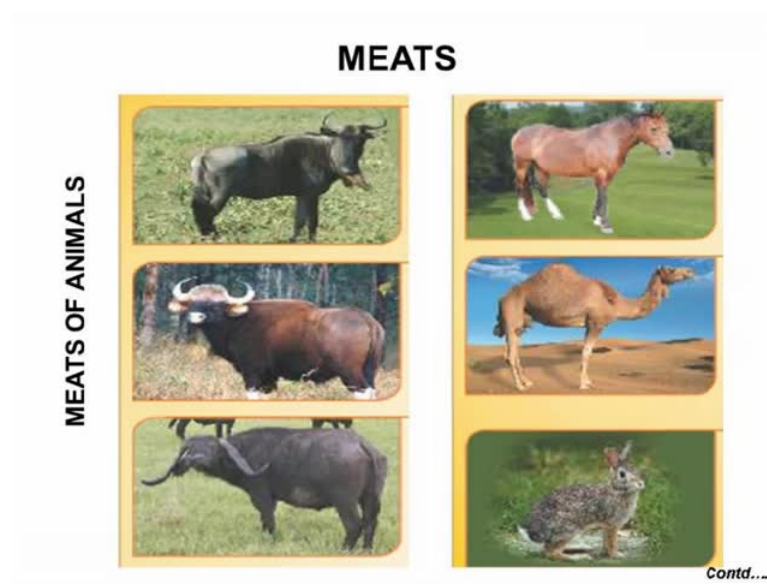
But essentially, conforming to the same type of classification, you look at cereals; and there are sub groups shown here, of different types of cereals - sali, mudga, masa, etcetera, these are all on the right hand side. There are nine different varieties.

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TABLE 6	
Food: General Classification	
Group	Sub-groups
2. Meats (māmsa)	<div><div>A. Jāngala</div><div><div>A1. Swift runners (Janghālā)</div><div>A2. Scatterers (Viṣkirā)</div><div>A3. Peckers (Pratudā)</div><div>A4. Cave dwellers (Guhāśayā)</div><div>A5. Snatchers (Prasahā)</div><div>A6. Tree dwellers (Paṇamṛgā)</div><div>A7. Hole dwellers (Vileśayā)</div><div>A8. Domesticated (Grāmyā)</div></div></div>

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Then, meats, there are two sub groups; one is jangala and the other is anupa. Two different types; first is swift runners, scatterers, peckers, cave dwellers, all those are listed on the right hand side.

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Fig. 1.21

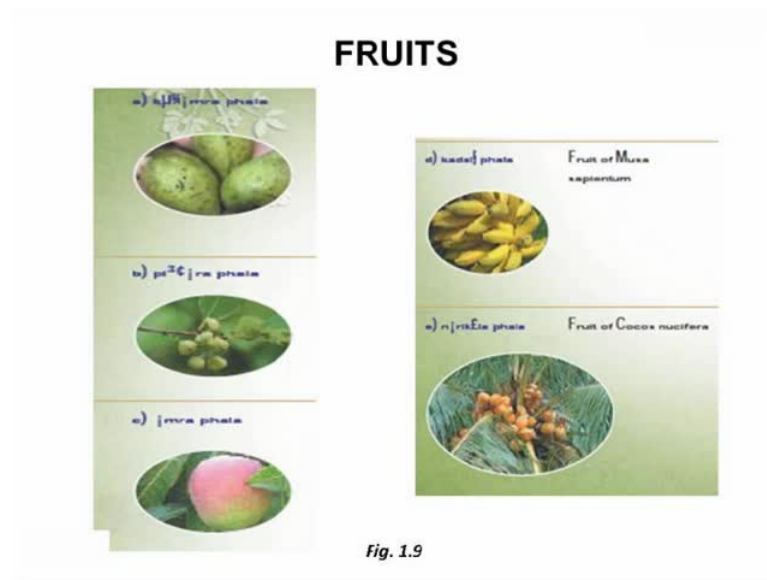
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TABLE 7 Food: General Classification	
Group	Sub-groups
	<p>B. Ānūpa</p> <ul style="list-style-type: none"> B1. Shore dwellers (Kūlacarā) B2. Swimmers in groups (Pḷavā) B3. Shelled (Kośasthā) B4. Legged [Pādinā (Pāthīnā)] B5. Piscatory (Matsya)
3. Fruits (phala)	<p>A. Dāḍima, etc.</p> <p>B. Fruit of fig (kṣīrivṛkṣa) trees</p> <p>C. Palm trees</p> <p>D. Grapes (Drākṣā)</p> <p>E. Vātāma</p>

Contd...

And then, you have aquatic, basically, based on water, like Kulacara, swimmers, shelled, legged, piscatory, fish; all these are listed aquatic. The others are on dry land and these are all listed here. I have taken one from the, one from a sub group to show how detailed this classification is. This is a group and sub group, and I have taken one from each sub group, to show you later on how detailed the classification is.

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Then, we have fruits; very different types of...Again, sub groups are there; dadima, fruit of palm trees, grapes, etcetera.

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And then, greens, vegetables, so many different types.

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TABLE 8 Food: General Classification	
Group	Sub-groups
4. Greens: vegetables (śāka)	A. Kūśmāṇḍa B. Trapusa C. Pippalī D. Cuccū E. Taṇḍulīyaka F. Maṇḍūkapaṇī G. Loṇikā H. Flowery vegetables I. Miscellaneous
5. Tubers (kaṇḍas)	No subgroups

Contd...

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Again, many of these are used in ordinary diet; they are also used in making medications. Then, we have tubers, kandas; there are no sub groups in that.

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TABLE 9 Food: General Classification	
Group	Sub-groups
6. Salts (lavaṇa)	A. Salts B. Kṣāras C. Metallic salts
7. Prepared Foods (kṛtānnas)	A. Gruels B. Meat C. Soups D. Other prepared foods
8. Sweet edibles	No subgroups
9. Drinks after meals	No subgroups

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Salts, different types, prepared fruits, krtannas, because all these which you have indicated above, they can be made into gruels; they can be made meats preparation, soups, other types of prepared foods, fried items and so on. Sweet edibles, there are no sub groups; drinks after meals, there are no sub groups. These are the nine groups which Susruta has listed.

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An example from cereals to illustrate the detailed description of one subgroup - Śāli

- **Numerous varieties**

Lohitaśāli	Kalama	Kardamaha
Śakunāhṛta	Puṣpāṇḍaka	Puṇḍarīka
Mahāśāli	Śītābhiruka	Dūṣaka
Many more		
- Śāli rice grown on land which had been burnt and ploughed is light, easily digested; rough, constipative and astringent; settles kapha and reduces urine output.
- When grown on arid land, rice is pungent, astringent, slightly bitter – sweet; settles kapha and pitta while enhancing vāta and digestive fire.

Contd...

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Now, let us look at the detail, you see, look at this, taken from the janghala group, the sali group, cereals, numerous varieties are listed here. Some of them are not identifiable today, but these are what are listed here, in the sub groups; but look at the details. This rice, which is grown on land, which had been burnt and ploughed is light, is easily digested, rough, constipative and astringent; settles kapha and reduces urinary output; but suppose, it is grown on arid land. So, it goes in to how much detail, the type of field in which it is cultivated, the way it is cultivated. All these are important. So, arid land, rice is pungent, astringent, slightly bitter, sweet, settles kapha and pitta, while enhancing vata and digestive fire.

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An example from cereals to illustrate the detailed description of one subgroup - Śāli

- **When grown in marshy land, śāli is sweet, heavy, slightly astringent and enhances potency: increases kapha and semen.**
- **When cultivated by repeated transplants, it is quickly digested and light, relieves perturbed doṣas, increases strength, reduces urinary output.**
- **Grown from sprouts, it is rough, bitter, easily digested, astringent and pacifies pitta and kapha.**

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When it is grown in marshy land, sali rice is sweet, heavy, slightly astringent, enhances potency, increases kapha and semen. And, when cultivated by repeated transplants, so he really goes into agriculture, it is quickly digested and is light, relieves perturbed dosas, increases strength, reduces urinary output. And, grown from sprouts, it is rough, bitter, easily digested, astringent and pacifies pitta and kapha. So, their actual behavior in the body, bodily effects, effects on dosas, they are considerably influenced by the way it has been grown, it has been cultivated.

So, that is the extent to which, and you can imagine all the sub groups, each item going into this kind of detail, how much attention had been paid to food items; from the stage of harvesting, from the stage of planting, harvesting and making it available to the patient.

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An example from meats to illustrate the detailed description of one subgroup – Swift runners (Jangālā)

Varieties:

- **Black deer (Eṇa):**
 - ❖ **Meat is sweet, astringent, pleasant.**
 - ❖ **Settles pitta, kapha and blood perturbation.**
 - ❖ **Strengthens body; improves appetite; lowers fever.**

Contd...

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Then, if you look at the varieties, the swift runners, that meat category, one example – here, you have black deer, ena, meat is sweet, astringent, pleasant, settles pitta, kapha, blood perturbation, strengthens the body, improves appetite.

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An example from meats to illustrate the detailed description of one subgroup – Swift runners (Jangālā)

Varieties:

- **Red Deer (Hariṇa):**
 - ❖ **Meat is sweet in taste and post – digestive taste: cold and light: settles all deranged doṣas; improves appetite, reduces output of urine and stools.**
- **Mṛgamātrka (English term unavailable):**
 - ❖ **Meat is cold; relieves pitta: beneficial in treating hemoptysis, phthisis, cough, hiccup; appetising.**

Contd...

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And, if you take red deer, another type, again, these effects on the body, effects on dosas, these are all given here. And, the third is mrgamatrka; I am unable to find a, an English equivalent for this; I have consulted several people; it is some kind of deer, but I am not

able to find out a proper name for it; meat is cold, relieves pitta etcetera. So, very great detail of whether it is vegetables, cereals, pulses, whether it is different types of meats.

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An example from meats to illustrate the detailed description of one subgroup – Piscatory (Matsya)

- **Fishes of rivers:** Meat is sweet, heavy, hot: settles vāta but excites pitta and kapha; enhances sexual vigor. Many fish are listed – Rohita, pāṭhīna, Muraḷa.
- **Fishes of Sea:** Meat is heavy, oily, sweet and hot: pacifies vāta, increases kapha, mildly perturbs pitta: increases sexual vigour, strength. Examples are timingala, makara, niruḷa.

Contd...

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And again, you will find, look at the other, matsyas, fish, fish from rivers; meat is sweet, heavy, hot, settles vata, but it excites pitta, and many different varieties are listed there. Then, we come to fish from the sea, it is, behavior is different from that to riverine fish, which are listed here.

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An example from meats to illustrate the detailed description of one subgroup – Piscatory (Matsya)

- **Riverine fish superior to sea fish:** they build tissues better; meat of fish from wells, tanks, and staired wells are better still, thanks to their “mucinous and palatable qualities”.
- **Interesting observations on the correlation between morphology and swimming style among fish from river, sea, wells and tanks.**

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Then, we come to, there is a general statement here, riverine fish is superior to sea fish. They build tissues better. Meat of fish from wells, tanks and staired wells are better still. So, these are all statements which are made on different types of fish. And, one of the interesting things which you find, when discussing these fishes, the swimming style of fishes in the river or sea, in tanks and so on, and the morphology, the shape of that fish and their style of swimming at these different water bodies. There is a very good correlation; there is a discussion on that.

That is a very important subject, because the way the, a human body is designed, or an elephants is designed, or a bird is designed, that is the form, a biological form. It has a lot to do with the function; that is a very important subject in biology. There is a famous book called On Growth and Form, written by D'Arcy Thompson, a hundred years ago. These are not accidental, a particular shape in elephant, or an ant, the shape, the morphology of that living being, it correlates with the function, the environment in which it has to live and the functions it has to subserve, those are the ones which determine our arms and legs; these are all designed to meet certain functions. So, in this, you find, very brief, but the fish, they move differently, they look differently, their shape is different, and there is a attempt to correlate that with their movement. That is a very interesting, just a, that is not the main subject here; but whoever wrote it, obviously he had observed it; because the way it has to move, swim in the sea, swim in the river, the requirement of swimming will be very different.

(Refer Slide Time: 25:22)

Observations on Groups of Fruits and Greens

- ❖ **Characterised by great variety; most of them continue to be in current use.**
- ❖ **Apart from regular use in cooking or as fresh fruits, they seem to have definite activity on doṣas and other effects on body functions. No fruit or greens is devoid of some therapeutic effect – a point made by Jīvaka as a student in Buddha's period.**

Contd...

So, their form is adaptive to that, this is what he has observed; very interesting. And, fruits and greens characterize great variety and most of them continue to be in current use; a few of them are not identifiable. And, apart from regular use in cooking, or as fresh fruits, they seem to have definite activity on the body and dosas. In fact, very few of them have no action on the body and dosas.

(Refer Slide Time: 25:52)

Observations on Groups of Fruits and Greens

- ❖ Most of the fruits are native to north India where Suśruta's text was composed; but coconut, jackfruit, pepper etc., had appeared from the south.
- ❖ Suśruta states that it is impossible to list all food items in his groupings because they are so large. However the best among each group is mentioned in Tables 10-12.

Contd...

25

And, most of the fruits are native to North India, because these books were written there. But you also find mention of coconuts, jackfruit, pepper; obviously, things had been going from the South to the North, even in those, 2000 years ago. Some kind of commerce did exist. It is impossible to list all food items in his groupings, because they are so large. The best items are mentioned here, in another table.

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TABLE 10	
Best among the food items	
Groups	Best Items
Cereals	Śaṣṭika rice, barley, wheat, raktaśāli, green gram, ādhakī, lentils (One year old).
Meats	Quail, partridge, sāraṅga, kuraṅga, black deer, grey partridge, peacock, vārṇi and tortoise; (animals should be middle aged).
Fruits	Pomegranate, āmalaka, grapes, dates, parūṣaka, rājādana and mātuluṅga (mature).

Contd...

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Cereals, Sastika rice, barley, wheat, raktasali, green gram, adhaki, lentils, one year old that is also specified. These are best among the cereals. Meats, again, you, you find a list here, kuranga, black deer, grey partridge, peacock, etcetera. These are the best among meats. And fruits, pomegranate, amalaka, etcetera, which are given here.

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TABLE 11	
Best among the food items according to taste	
Groups	Best Items
Greens (fresh)	Satīna, vāstuka, cuccū, cillī, mūlaka, maṇḍūkaparṇī, jīvantī (fresh).
Milk and ghee	Of cow
Salts	Rock salt
Bitter	Paṭola, vārtākī

Contd...

27

And greens, again, the list is given; it has to be, unlike fruits, which have to be matured, and greens they have to be fresh. So, that specification is also given. And taste wise for

these, milk and ghee of cow, salts, rock salt, bitter is patola, sweet is ghee and honey. All these items are recommended, best among these.

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TABLE 12

Best among the food items according to taste

Groups	Best Items
Sweet	Ghee, honey
Astringent	Areca nut, parūṣaka
Sugar producers	Sugarcane
Drinks	Mārdvika, drākṣāsava

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COOKED FOOD

PROPERTIES OF MILK BASED ON VESSEL OF BOILING

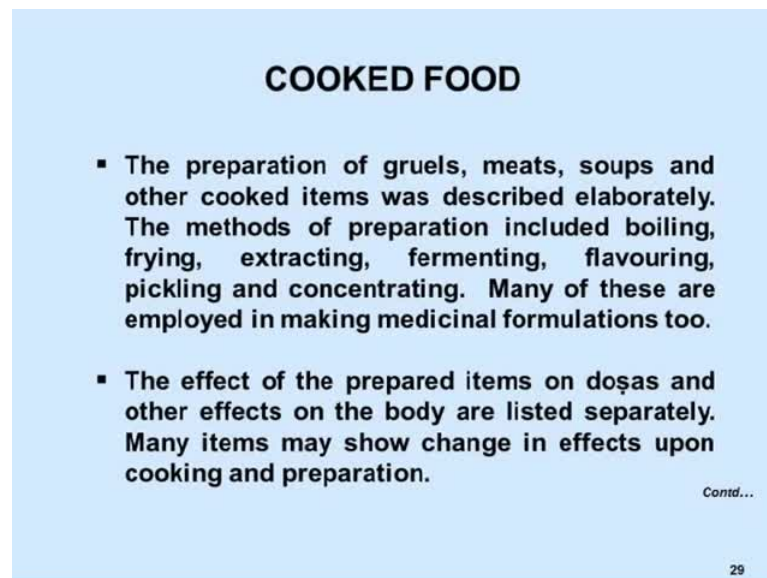
a) सिरसा	Milk, cooked in Copper Vessel
b) सवर्णा	Milk, cooked in Gold Vessel
c) चांद्या	Milk, cooked in Silver Vessel
d) ताम्र्या	Milk, cooked in Brass Vessel
e) लोह्या	Milk, cooked in Iron Vessel
f) मृत्पात्रे	Milk, cooked in Earthen Pot

And when we come to cooked food, preparation of gruels, meats, because you must remember, in the old days, gurukula days, much of this cooking, that is, this household included the students. So, the cooking had to be done for all of them also; it is not only for the teacher and his wife, or children. So, there was a, something like a small community kitchen. So, the preparation of food was, kind of very much attached to the

preparation of formulations also; because, often there were no factories there in those days.

So, lot of formulations were made in the teacher's gurukula itself; patients coming there, they would be given. So, many of the methods used in cooking, like we have boiling, frying, extracting, fermenting, flavoring, pickling, all these methods, they were used in the regular household cooking; but the same methods were also used in making formulations. So, the teachers, the students living in the teacher's house, often they did cooking; that was the part of their learning process, because, cooking included cooking the formulations. In fact, in the story which I mentioned, Jeevaka going all the way to Takshashila; and he was offering, he was not paying any fees; he had no money; and he offered to do service; and the service, one of the things they did was this, cooking and it is not only cooking food for the teacher and the family and for all his colleagues, but also included cooking the formulations. So, that was actual, practical training. So, when they did this for 6 years, he was an expert in making formulations, because he had learnt all about it first handed.

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COOKED FOOD

- **The preparation of gruels, meats, soups and other cooked items was described elaborately. The methods of preparation included boiling, frying, extracting, fermenting, flavouring, pickling and concentrating. Many of these are employed in making medicinal formulations too.**
- **The effect of the prepared items on doshas and other effects on the body are listed separately. Many items may show change in effects upon cooking and preparation.**

Contd...

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So, that, all these techniques which are used, different types, practically all of them, are also used in making formulations. And, the effect on, of the prepared items on dosas, they are listed separately; but the food items, the effect on the dosas and the body will change following the cooking, we will see that; very big changes.

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COOKED FOOD

- **Cooked in oil, food articles become heavy, pungent in post-digestive taste and hot: they cause heartburn, settle vāta and perturb pitta: cooked in earthen pots over burning charcoal, food is light but perturbs vāta.**

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Cooked in oil, food, this is an example, food articles become heavy, pungent and post-digestive taste in pungent and becomes hot. So, post, may not be hot in the pre-digestive original taste; but after cooking, frying in the oil, it becomes hot as post-digestive taste. They may cause heartburn, settle vata and perturb pitta, and cooked in earthen pots over burning charcoal, there food is light; like a, we can say, any restaurant, we will know that, people will prefer, fried pooris they do not want to eat, because it is heavy. So, it is much better to take barbecue, or something dry heat on an oven, you make it; so, that is light.

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DRINKS AFTER MEALS (ANUPĀNA)

- **A properly chosen drink after a meal facilitates digestion, assimilation of food and revives the relish for food.**
- **Cold/warm water, wine, soups of pulses, sour fruit juice, sour rice gruel, milk and meat drinks commonly used.**

Condi...

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And, drinks after meals, anupana. A properly chosen drink after a meal facilitates digestion. So, this was chosen with great care, especially for patients, and assimilation of food is assisted by this, and it revives the relish for food; if you want to take a second helping, that is, made it more welcome after taking the anupana. Cold warm water, wine, soups of pulses, sour fruit juices, sour rice gruel, milk and meat drinks were commonly used, according to Susruta.

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DRINKS AFTER MEALS (ANUPĀNA)

- **A physician prescribes a post-prandial drink based on the disease of the patient, time of the year and the components of his meal. Rain water, harvested and kept in a clean vessel, is the best drink.**
- **Drinks were recommended after the consumption of various food items.**

32

And, the physician prescribes a post-prandial drink. So, it is not taken random. There you will see that, there is a specific way you choose post-prandial drinks, anupana, based on the disease of the patient, time of the year, whether it is winter, whether it is summer and the components of his meal. And, rain water harvested and kept in a clean vessel, it is the best drink. And, drinks were recommended after consumption of various food items; you will see, the care with which these drinks were chosen, anupana; like cereals, juice of jujube fruits.

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Selected Postprandial drinks for different foods	
TABLE 13	
Food	Drink recommended after meal
Cereals	Juice of jujube fruits
Pulses	Sour gruel
Meat of swift runners (jāngalyas)	Pippalyāsava
Meat of peckers (viṣkīra)	Āsava of kola and badara
Meat of hole dwellers (Vileśaya)	Phalāsava

Contd...

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So, you will find all these, it is not random at all. There is a reason, because after that, the digestion has to be enhanced for that particular item; it has to be welcomed; should be easy for him to drink. All these are taken into consideration; the time of the year is taken into consideration.

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Selected Postprandial drinks for different foods	
TABLE 14	
Food	Drink recommended after meal
Meat of riverine fish (nādeyamatsya)	Āsava of lotus stalk
Meat of sea fish (sāmudramatsya)	Āsava of mātuluṅga
Sour fruits	Āsava of kamala and utpala
Sweet fruits	Khaṇḍāsava with trikaṭu
Pungent fruits	Āsava of dūrvā, nala and vetra

Contd.

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And, taking all these they have recommended, these are the anupanas which are recommended for meats, or riverine fish; each one, sea fish, each one is different. And again, sour fruits, you find the drink recommended is different; sweet fruits, it is

different; each one is highly specific, how anupanas are chosen. And, these are also important in, when you take drugs. Suppose, you are taking some pill and you have to take an anupana, same considerations will come there; patients strength, the kind of dosas disturbance he has; all those are taken into consideration, when he is taking a particular pill, a medication, what is the drink that he should take along with it; it is not random, to get optimal results.

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Selected Postprandial drinks for different foods	
TABLE 15	
Food	Drink recommended after meal
Greens of pippalyadi group	Āsava of gokṣura and vasuka
Rock salt	Surāsava and Āranāla

If post prandial drinks are taken before meal, they would cause loss of weight. They are forbidden in patients with shortness of breath, cough, chest wound and diseases of head and neck.

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And this, you note here, if these drinks are taken before the meal, it points out that, it kills his appetite. So, it should not be taken before the meal.

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Now, water, not postprandial; just when you are thirsty, you would drink.

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DRINKS

Water:

- ❖ Water assigned priority as the most wholesome drink. Rain water preferred over ground water.
- ❖ Instructions on collection of water for drinking purposes in different seasons. Eg.

TABLE 16

Seasons	Preferred water sources
Rain	Rain water, springs
Autumn	All types of ground water

Contd...

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Water is assigned very high priority, and this is the most wholesome drink, but instructions on collection of water, you see the seasons and the sources from which it should be collected. These are mentioned here; in those days, like rain water which is considered the best; autumn, all types of ground water, ground water.

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DRINKS	
TABLE 17	
Seasons	Preferred water sources
Early winter	From lakes or tanks
Spring	Well or water fall
Summer	"
Early rains	From shallow well: lakes and tanks filled before rains

Contd...

37

Early winter, from lakes or tanks, spring, from well or water fall and summers, the same; and, early rains, from shallow well, lakes and tanks, filled before the rains. So, these are the recommendations. Many of these are no longer relevant, because we live in a different environment altogether, but these were the guidelines given in those days.

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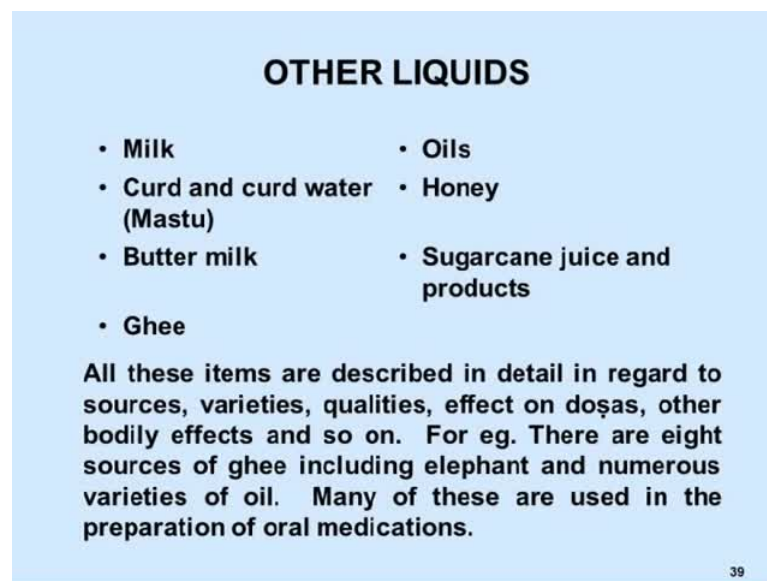
DRINKS
<u>Water:</u>
❖ Water purification by removal of turbidity, filtering, boiling, scenting with flowers, storage in clean vessels and in special stands etc., are described. The water fit to drink should be "clear, light, cold, free from smell or obvious taste".
❖ Quality of water in rivers flowing eastwards, westwards, southwards, originating from different mountains etc., mentioned.

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And water purification, which was recommended. There is something mentioned, it looks like alum, which will remove the turbidity of the water, that is mentioned. And, storage in clean vessels; as you know, there is lot of interest now in using copper vessels,

because evidence that copper vessel has an anti-bacterial property; but it should be clean vessels; that is mentioned. And, special stands are described for water purification and the water fit to drink should be clean, light, cold and free from smell or obvious taste. And, quality of water in rivers flowing eastwards, this is also mentioned, westwards, southwards, originating from different mountains; these are like Vindyas, Himalayas, these are all mentioned; the tastes are different.

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OTHER LIQUIDS

- Milk
- Curd and curd water (Mastu)
- Butter milk
- Ghee
- Oils
- Honey
- Sugarcane juice and products

All these items are described in detail in regard to sources, varieties, qualities, effect on doṣas, other bodily effects and so on. For eg. There are eight sources of ghee including elephant and numerous varieties of oil. Many of these are used in the preparation of oral medications.

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Other liquids, milk, oils, curd and curd water, honey, butter milk, very highly priced butter milk, sugarcane juice and products and ghee, these are all mentioned as other liquids for consumption. Now, the detail to which, just like that growth of the sali rice, cultivation, the details that were said, here also, you will find the same. If you look at the sources of ghee, there are eight, even elephant, that is also mentioned. Obviously, for certain specific diseases, these are not for regular consumption. When you are making a particular drug for certain conditions, there you may have to use it. So, it is one of the items used in making formulation; so, for cataloging, that is mentioned.

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WINES

- Properties of old wine include enhancement of pitta, increase in appetite, relief of kapha and vāta, improvement of digestion, relaxation body, relief of constipation and cleansing of urinary bladder.
- Suśruta describes over 20 varieties of āsavas, ariṣṭas, śukta and others made from a variety of sources such as grapes, barley, rice, jaggery, sugarcane juice etc.

Contd...

40

Wines, the extensive classification and the properties of old wine. They include enhancement of pitta, increases appetite, relief of kapha and vata, improvement of digestion, relaxation of the body, relief of constipation and cleansing of urinary bladder. It is highly priced. Susruta describes 20 varieties of asavas, aristas, etcetera, and others made from a variety of sources like grapes, barley, rice, jaggery, sugarcane juice, etcetera.

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WINES

- Wine preserved for long and has acquired good taste, stimulates digestion, settles kapha and vāta; is clear, unpolluted, fragrant and promotes enjoyment.
- The different effects of wines on people with sāttvic, rājasic and tāmasic temperament: adverse effects influenced by temperament.
- Charaka, Suśruta and Vāgbhaṭa have extolled wines, while cautioning against overuse and addiction.

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Charaka gives even a longer list of wines. And, the wine preserved for long has acquired good taste, stimulates digestion, settles kapha and vata, is clear, unpolluted, fragrant and promotes enjoyment. You may remember that, Vagbhata also is eloquent on the benefits of wine. He even describes a wine party, how wine should be enjoyed in good company, the vessels that should be used to collect the wine, all these are mentioned; but all these wines have different effect on different types of people; sattvic, rajasic and tamasic, we referred to this yesterday. And, these are genetical endowments people have, and the wine acts differently in this three different people. On a tamasic individual, it is a very different effect, compared to a sattvic person.

So, we have to keep these in mind. If you read the description, Ayurveda never was a puritan philosophy. It encouraged enjoyment, a joyful life; so, wine was part of that. It has benefits also, as some of these listed here. But the quantity that you take, there is always a danger of becoming addicted to it. That, all these three authors, they have mentioned the danger of overuse, addiction and also the personality; very different a tamasic, he can become belligerent, a tamasic person, rajasic person. So, that is, is extremely important, looking at the response to the intake of wine.

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**PHYSICAL PROPERTIES OF
FOOD ARTICLES**

- ❖ **Heaviness/lightness of food article especially important in prescribing diet for patients.**
- ❖ **In meats, the habitat of the animal, part of the body, constitution, gender, size, additives used in cooking and cooking process influence heaviness/lightness.**
- ❖ **Shoulder heavier than thighs; meat of common quail/partridge light while that of pig is heavy; meat of male heavier than that of female.**

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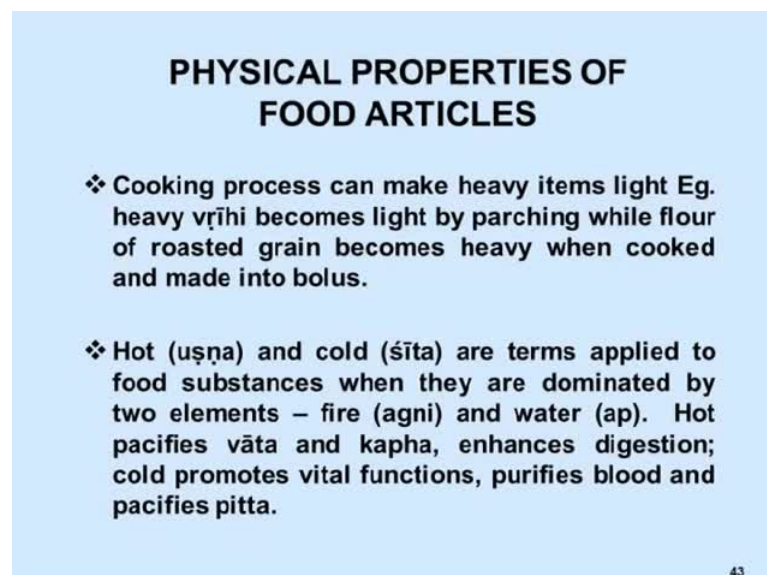
And, the physical properties of food articles - heaviness, lightness of food articles, especially important in prescribing the diet for patients, his digestive capacity, his deepana. So, that heaviness or lightness of food, that is important for prescribing the

right kind of food for different individuals. In meats, the heaviness is, you look at the way, habitat of the animal; whether it is jangala, arid land, in a humid land; that will be different, the property of the meat, part of the body, constitution, the gender, size, additives used in cooking and cooking process, all these affect the heaviness or lightness.

In fact, the animals consuming only vegetables; and there are animals which are carnivores. In treating tuberculosis patient, you have a lot of wasting. Charaka encourages giving carnivorous animal's meat; there is a special benefit claimed for that, in order to build up the body; and, it even goes to the extent, most patients are reluctant; the moment you tell them, like a tiger's meat, for example; it is not given ordinarily, and most people would hate to eat it. So, it is even justified, you can even trick them; say that, it is some other kind of meat; to that extent it goes. So, it is a heavy item.

So, here, the habitat of the animal, whether it is a, a vegetable eating, or it is carnivorous, gender, size, additives used, all these are important determining the heaviness or lightness of the meat. Now, shoulder, for example, is heavier than thighs. The meat of common quail which is a recommended item is light, while that of pig is heavy; meat of male is heavier than that of female; these are all guidelines mentioned.

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PHYSICAL PROPERTIES OF FOOD ARTICLES

- ❖ **Cooking process can make heavy items light Eg. heavy vṛīhi becomes light by parching while flour of roasted grain becomes heavy when cooked and made into bolus.**
- ❖ **Hot (uṣṇa) and cold (śīta) are terms applied to food substances when they are dominated by two elements – fire (agni) and water (ap). Hot pacifies vāta and kapha, enhances digestion; cold promotes vital functions, purifies blood and pacifies pitta.**

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Then, cooking process, heavy vṛīhi, if it is parched, it becomes light; whereas, roasted grain, if you soak it in water, then, it becomes heavier. So, the treatment makes it, changes the properties considerably. And, hot, cold, these terms are used based on the

dominance of these food items by the bhutas. So, if fire is the dominant bhuta, water is dominant bhuta, then, the behavior will be different. Hot pacifies vata and kapha, enhances digestion, because fire is the dominant element there, and cold promotes vital functions, purifies blood and pacifies pitta. So, that again, we come back to the first, the dominance of the element determines the behavior.

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INCOMPATIBILITIES IN FOOD

- ❖ Substances may be entirely wholesome or unwholesome; or they may become either by virtue of combinations. They could be wholesome, but become even poisonous by combination.
- ❖ Suśruta gives a list of wholesome varieties among various categories of food such as cereals, meats, greens, fruits etc.
- ❖ Wholesomeness/unwholesomeness transcend diet, and involves one's conduct; what is wholesome conduct and food may be unwholesome for another living in a different locale and used to a different life style.

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Incompatibilities in food is a very big item in Ayurveda. If you take incompatible, or a wholesome food can become incompatible if you combine it with certain other items. And, this is from long experience they have learnt and they have even given detailed tables; may be entirely wholesome, or unwholesome, or they may become either, by virtue of combinations; it could, something is very wholesome, but you can make it unwholesome by mixing with something, which, which should, which should not be combined. And, Susruta gives a list of wholesome varieties among various categories, such as cereals, meats, greens and so on.

And, they transcend this is wholesomeness, or incompatibility, it is not only in the food items, the conduct also. That is, in fact, unwholesome conduct along with food, severe type of activity after a meal, these are actually incompatible, or is easily, your digestion maybe completely spoiled if you are going to run in hot sun after a heavy meal. So, that is also an incompatibility; it is not only restricted to food items, also conduct. And similarly, if a person living in a very cold country, in a different culture, eating different

type of food; now, that also we should consider, what is compatible there, may not be compatible here, in a different environment, for a different type of people. So, there should be some flexibility in the definition of wholesomeness, or compatibility. All these must be considered. Now, here is a partial list; I am only giving examples here.

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Unwholesome or harmful food resulting from incompatible combinations of food items

TABLE 18 : Examples

Diet Articles	Incompatible combinant
Newly sprouted grain, muscle fat, honey, jaggery, black gram	Meat of domestic/aquatic animals
Crane meat	Vāruṇī (wine)
Rohini, jātuka	Milk, honey
Wine	Pāyasā
Sesamum cake	Fermented gruel (sauvīraka)

Contd...

The diet articles are mentioned and what should not be combined with them on the right hand side. And, you can see crane meat, this varuni, the wine should not be combined; rohini, that should not be combined with milk; wine should not be combined with payasa; like that, a series of things are mentioned here; radish should not be combined with honey.

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Unwholesome or harmful food resulting from incompatible combinations of food items

TABLE 19 : Examples

Diet Articles	Incompatible combinant
Radish	Honey
Fish, especially cilicima	Milk
Banana	Milk, buttermilk
Pigeon meat	Fried in mustard oil
Partridge, peacock meat	Cooked on fire with eranda, dāruharidra as fire wood

Contd...

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These are only examples; like fish, cilicima; this is actually considered fatal, but that, there is some confusion about that cilicima. Nobody knows what exactly is that kind of fish; I have not been able to identify that, but it is considered highly incompatible with milk. Banana with milk and buttermilk, it is considered incompatible. Some of these, it is difficult for us to, under what context they said this, but it is considered incompatible. Pigeon meat, incompatible, if fried in mustard oil; partridge, peacock cooked in fire with eranda.

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Unwholesome or harmful food resulting from incompatible combinations of food items

TABLE 20 : Examples

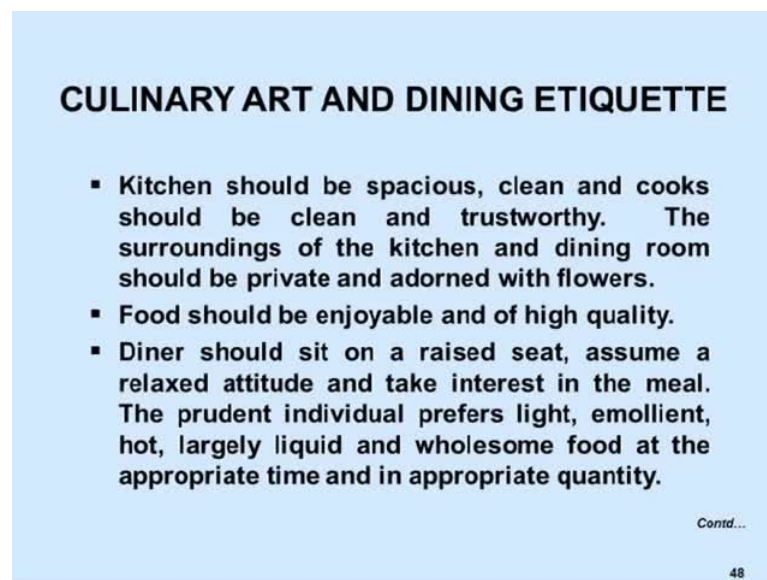
Diet Articles	Incompatible combinant
Ghee	Preserved in brass container for over 10 days
Upodika (vegetable)	Cooked with sesamum paste
Crane meat	Cooked in pig fat and coconut

➤ These incompatibilities may not assail a young, strong and hard working person with good digestion.

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Ghee preserved in a brass container for over 10 days, highly specific; and, crane meat cooked with pig fat and coconut. So, there are a whole lot of them, I have just taken a few examples which could be familiar with us. Now, it concludes by saying, these are for the general population, but what is considered incompatible here, for a young vigorous man working, very hard in the field, everyday, and for a person like that, he could digest all these, may not be incompatible for him; but these are for the average people who are not hard working laborers. So, that also is mentioned. In other words, they are not absolute. What is mentioned here is for the average population, but for a young, strong, hard working individual, they may not be incompatible; that is what it says.

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CULINARY ART AND DINING ETIQUETTE

- Kitchen should be spacious, clean and cooks should be clean and trustworthy. The surroundings of the kitchen and dining room should be private and adorned with flowers.
- Food should be enjoyable and of high quality.
- Diner should sit on a raised seat, assume a relaxed attitude and take interest in the meal. The prudent individual prefers light, emollient, hot, largely liquid and wholesome food at the appropriate time and in appropriate quantity.

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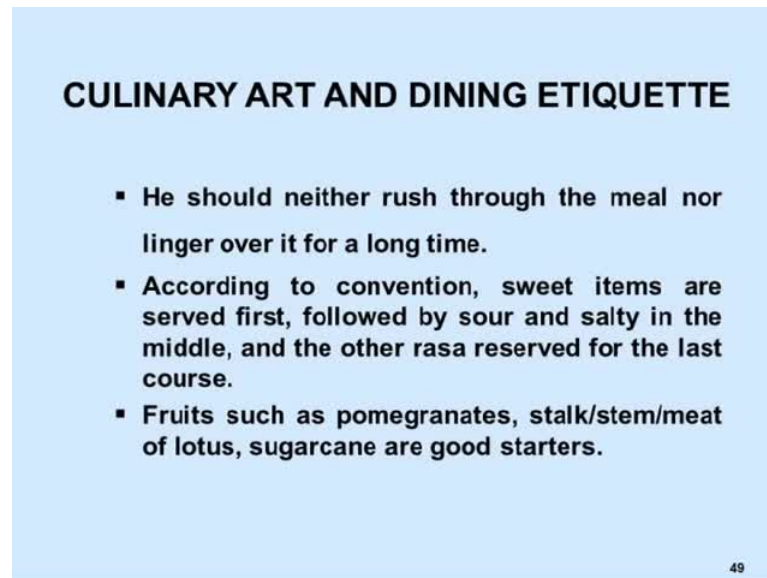
48

Then, we come to culinary art and dining etiquette. That is what I started by saying, food is not just for meeting a biological urge, which is the primary objective, but it is not only that; so, this particular thing about cooking as an art. Now, it is a big discipline; subject itself. There are big institute dealing with this; hospitality industry, learning institutes, how to cook, how to serve it. All these are, they have become very elaborate. So, culinary art was highly priced in those days. The kitchen should be spacious, clean and the cook should be clean and trustworthy.

Surroundings of the kitchen and dining room should be private and adorned with flowers. See, the kind of ideas that they have. And, the food should be enjoyable and of high quality. The diner should sit on a raised seat, assume a relaxed attitude and take

interest in the meal; interest in what you are eating, not just gulping down. So, the prudent individual prefers light, emollient, hot, largely liquid and wholesome food, at the appropriate time and appropriate quantity. Quantity has been mentioned already elsewhere; half the stomach should be solid, one quarter should be liquid; the last quarter should be left free for air to move. So, that is there about quantity.

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CULINARY ART AND DINING ETIQUETTE

- He should neither rush through the meal nor linger over it for a long time.
- According to convention, sweet items are served first, followed by sour and salty in the middle, and the other rasa reserved for the last course.
- Fruits such as pomegranates, stalk/stem/meat of lotus, sugarcane are good starters.

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And, neither rushing through the meal, nor taking too long. So, it should be enjoyable; you do not rush, gulp it down, fast food; there is no place for it. We should enjoy. And, according to convention, sweet items are served first; but sweet items you will see, they are pomegranates; papaya is not mentioned, because there was no papaya in India. It was brought in by the Portuguese. So, we have pomegranates, lotus stalks, sugarcane; these are all the starters in those days, sweet items; followed by sour and salty in the middle, and other rasas for the last part. This was the sequence in which food was served in those days.

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DINING ETIQUETTE	
▪ The etiquette for dining was so detailed as shown by the stipulation on the containers for food items (Table).	
TABLE 21 : Food items and containers : Examples	
Food	Recommended containers
Ghee	Iron
Gruel	Silver
Fruits	Leaves
Meat drink, juices	Silver

Contd...

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And, dining etiquette, see the detail, everywhere you, I am skipping all these, but look at the detail; this gives you an idea like serving the items. Serving, there has to be special types of containers; and, if you look at that, ghee is in iron vessel; gruel in silver vessel. Obviously, these are rich people who could afford this type of, the kind of description, whether it is food, or healthcare, everywhere, these are people who could afford. There is no question about that; whether it is Charaka, or Susruta, there are, in that first suspend of a patient, can he afford the treatment, that is one of the questions which is being asked.

The only place, I have a Japanese friend who is interested in Ayurveda, a scholar, and he once told me that, when you read these, it looks like they only treated rich people. That is a common impression that you get. If you look at that for example, silver vessels, fruits, leaves, again, meat, drinks, silver vessel.

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DINING ETIQUETTE	
TABLE 22 : Food items and containers : Examples	
Food	Recommended containers
Boiled and cooled water	Copper
Syrup/wine	Earthenware
Rice/pulse with lickable items	Large attractive vessel

▪ Timings of meals appropriate to the season; quantity to be eaten; cleaning the teeth after meals etc., were recommended.

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Boiled, cooled water, copper is mentioned here, in this list. Syrup, wine in earthenware and rice, pulse with lickable items, large attractive vessel; no particular mention. But the only place I have seen, after Professor Yamashita told me this, I had never thought on those lines. Then, I searched and I found, there is only one place; perhaps, the only one place, in the whole of Ayurveda, where the ability of the patient to pay is mentioned. That is when you talk about fomentation; fomentation like special type of, whole body fomentation. You have to have a special set up like janthaga.

Now, in discussing that, Charaka says, this is very elaborate; you have to have a special type of constructed place to do this kind of fomentation. In that connection, he says, for those who cannot afford, there is a no frills method of doing this; he mentions that. That is the only place I have seen reference to it; it is not that they did not treat them, but when the book is written, they only pay attention to this; but they obviously, were aware of this, and that one mention; I in fact, wrote to professor Yamashita, you look at this; so, it was not that the problem was ignored, they knew that.

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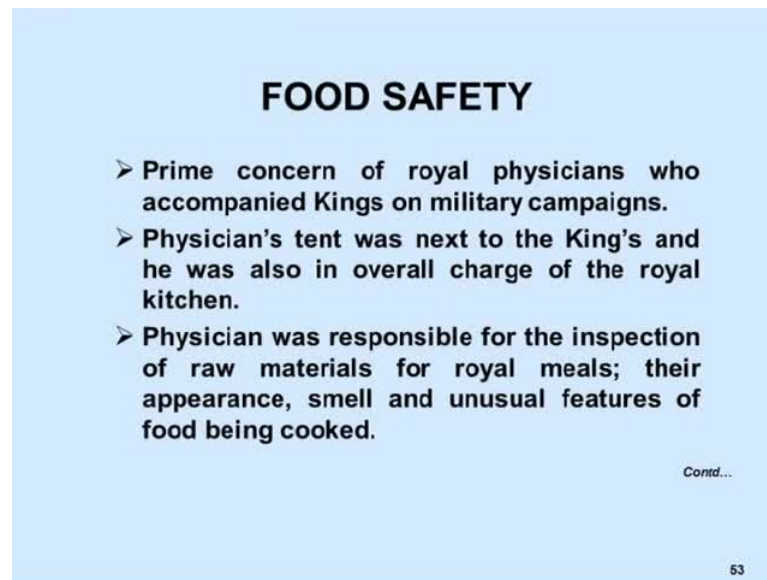
CONDUCT AFTER MEALS

- Chewing astringent, pungent or bitter substances like arecanut, camphor, clove, betel leaves etc., desirable to get rid of sliminess in the mouth.
- Relax like a King till the “strain of the dinner” is over, walk a little and then lie down on the left side for repose, not sleep.
- Pleasant sounds, sights, smells are desirable at this time. Exposure to hot sun, severe physical activity are inappropriate.
- Many other directions on meals, indicating the great importance attached to food in physician's training.

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So, here, it gives an idea of how much detail, about how to serve these items, in the ideal conditions. Now, A conduct after meals; chewing astringent, pungent, bitter substances like arecanut, camphor, cloves, betel leaves, etcetera; desirable to get rid of sliminess in the mouth. And, relax like a king; this is what it says, till the strain of the dinner is over and walk a little bit, not too much heavy exercise; and then, lie down on the left side for a repose; not for sleeping, but to relax. Pleasant sounds, sights, smells are desirable at this time; this is getting the full enjoyment of a meal. Exposure to hot sun, severe activity, that is forbidden; and many other directions on meals, indicating the great importance attached to food and how it should be enjoyed.

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FOOD SAFETY

- **Prime concern of royal physicians who accompanied Kings on military campaigns.**
- **Physician's tent was next to the King's and he was also in overall charge of the royal kitchen.**
- **Physician was responsible for the inspection of raw materials for royal meals; their appearance, smell and unusual features of food being cooked.**

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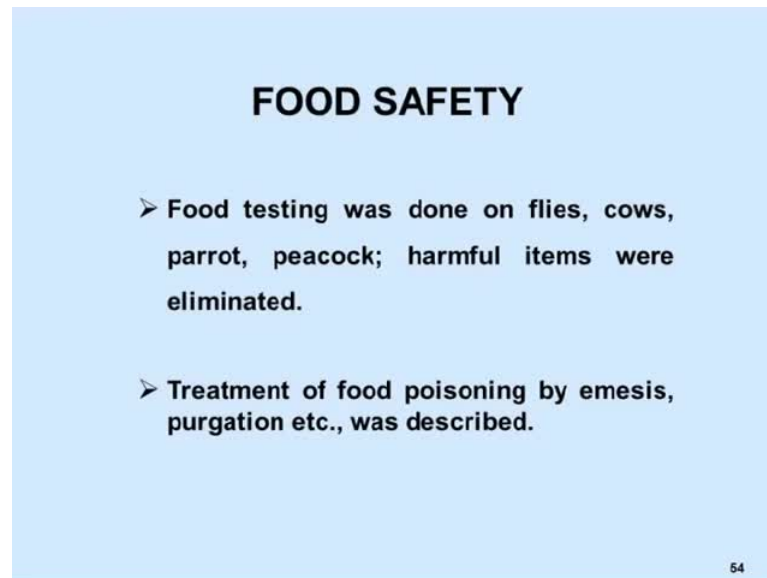
Now, when you come to food safety, this is an important item, especially for the royal physicians. In that guru's household, obviously, it will be highly, they are all watching, safety part is not a concern; but in the King's campaigns, it is a different matter; because poisoning was always a dreaded reality; because enemies, spies, if you read Kautilya's Arthashastra, spies are everywhere, who are out to take away secrets, to poison the kings, not only in India, even abroad. So, here, the royal physician, he had to have special training in this, to be a royal physician; because when we talked about the debates, those who wish to become a royal physician, which was a great, highly sought after position, they had to be very skilled in this.

That is, they had to have specialized expertise in knowing and arguing, all that. Only after getting, passing that test, he could hope to get a position as a royal physician; and he was trusted by the king. He always accompanied the king in his campaigns and he had a tent next to the kings. And always, he had access to the king; it was a very high position. And, he was responsible for all these inspection; this is given most in detail by Vagbhata. Food items had to be screened by him, before allowed, being allowed into the kitchen. He was responsible for it and the cooking, the preparation, or the additives being used, all these have to be done with his approval.

So, he had to be very thorough with the cooking methods; he has to know all this; unless you know it, you cannot supervise. And, the appearance of it, a number of descriptions

are there. If you put it under fire, the color which comes, for example; number of tests like this; smell, unusual smell, immediately, it would be suspect and they would test it; if he had any doubt about it, the raw material, or the cooked item, or half way cooked; if he had any doubt about it, in terms of color or smell, they would test it, giving it to animals, or birds and so on, and what happens to them. So, they, they will test it.

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FOOD SAFETY

- **Food testing was done on flies, cows, parrot, peacock; harmful items were eliminated.**
- **Treatment of food poisoning by emesis, purgation etc., was described.**

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And, flies, cows, parrot, peacock, these were all used as experimental animals to test the toxicity; and the treatment, if somebody developed food poisoning, and then, the treatment is also, especially by purgation. And also, there are drugs given for protecting the heart; there are number of things mentioned about treatment of food poisoning.

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SUŚRUTA ON FOOD

“Food is the source of life, strength, complexion, and ojas of living beings. Food, in turn, derives its properties from six primary tastes which are inherent in the substances that comprise food. The substances, their specific tastes, qualities, potencies, and digestive transformation underlie the equilibrium and disequilibrium of doṣas as well as dhāthus. Food is the primary agent in the genesis, existence, and dissolution of even the divine Brahma.

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Now, Susruta on food, I like to conclude with this. This is a very important. Everything about food, Susruta has put into this, is the source of life, strength, complexion and ojas. Ojas comes again. Food, in turn, derives its properties from 6 primary tastes, which are inherent in the substances that comprise food. The substances, their specific tastes, qualities, potencies and digestive transformation underlie the equilibrium and disequilibrium of dosas, as well as dhatus. It is a complete statement; and food is the primary agent in the genesis, existence and dissolution of even the divine Brahma.

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SUŚRUTA ON FOOD

As growth, strength, good health, complexion and the alertness of senses are traceable to food, ill-health too can be traced to the disequilibrium in food which belongs to four categories. These are soft food, drinks, lickables, and chewables, which are composed of diverse substances, prepared in different ways, and cause manifold effects. In the absence of a sound understanding of food, its varieties, preparations and functions, physicians would neither be able to maintain the health of the healthy nor control the disorders of the ill”.

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As growth, strength, good health, complexion and alertness of the senses are traceable to food, ill-health too can be traced to the disequilibrium in food, which belongs to four categories, which we have seen. And these are soft food, drinks, lickables and chewables, which are composed of diverse substances, prepared in different ways and cause manifold effects in the absence of a sound understanding of food, its varieties, preparations and functions, physicians would neither be able to maintain the health of the healthy, nor control the disorders of the sick. So, this is the, a full complete statement of this, everything about food.

Obviously, the, it does not go into the general public; there is a heavy emphasis on food and drinks for patients in this. If you look at the composition of items, many of them are medicinal plants, tastes and all that. So, obviously, there is a orientation towards patients, which is understandable; these are medical texts. But many of these, or there are extensive books in India on cooking. Cooking is an art; several books published on this, just like Ayurveda was being popularized, we also have a science in cooking. There is a lot of crossover in this, like rasas and all that, they also used, but not in the same way as we do in Ayurveda.

So, that literature, which many of these, our reception, our hospitality industry people, I have talked to some of them, just like we take interest in Ayurveda, history of food and drinks in Ayurveda, they take interest in the tradition of cooking; lot of overlaps are there, but that is something which we should keep in mind. There is a very rich, varied heritage in regard to food in India. This is one sector; but we also have the other sector, which are useful in general public, for reception, royal reception etcetera.

If you look go to the Central Food and Technology Institute, in their library in Mysore, you will find a whole lot of literature on this, food in ancient India; and there, you will find food items coming from outside, like mercury coming from outside in the treatment part, rasasastra; did not originate in India, we have contributed. Similarly, number of these things, like tapioca, which are all being used today, pepper, not pepper, the red chilli, or papaya; number of items were introduced by Portuguese here. So, in that, in that library, you will find a whole lot of books, new types of cooking, and new types of food items come. So, we have an extensive heritage in the area of food and drinks, and we have Ayurveda is one sector in that, that I think we should remember, when you look at food and drinks.