

Human milk  
carbohydrates  
and its role in the  
infant nutrition

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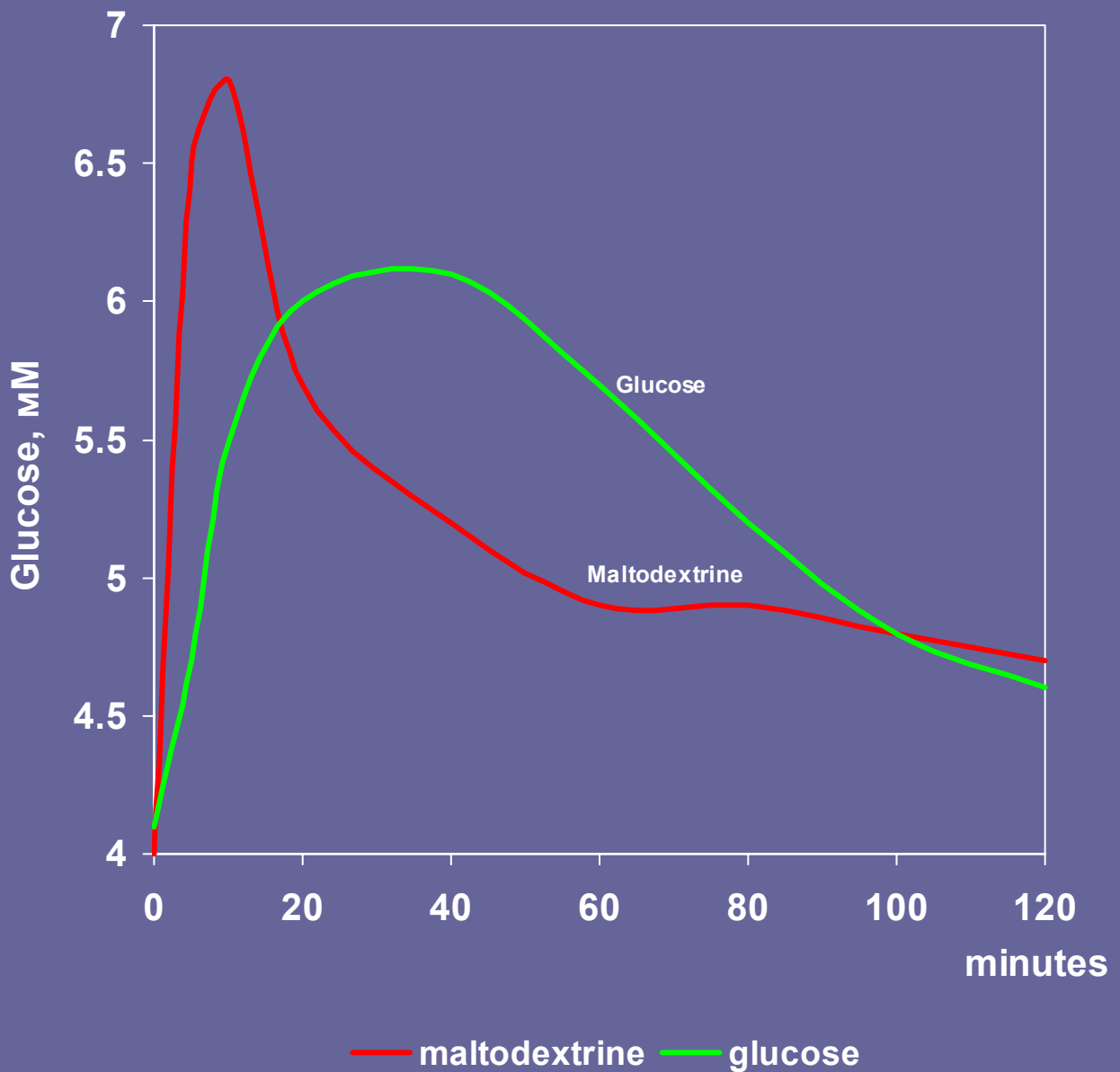
## Mature milk carbohydrate composition

(from 15 days to 15 months of lactation)

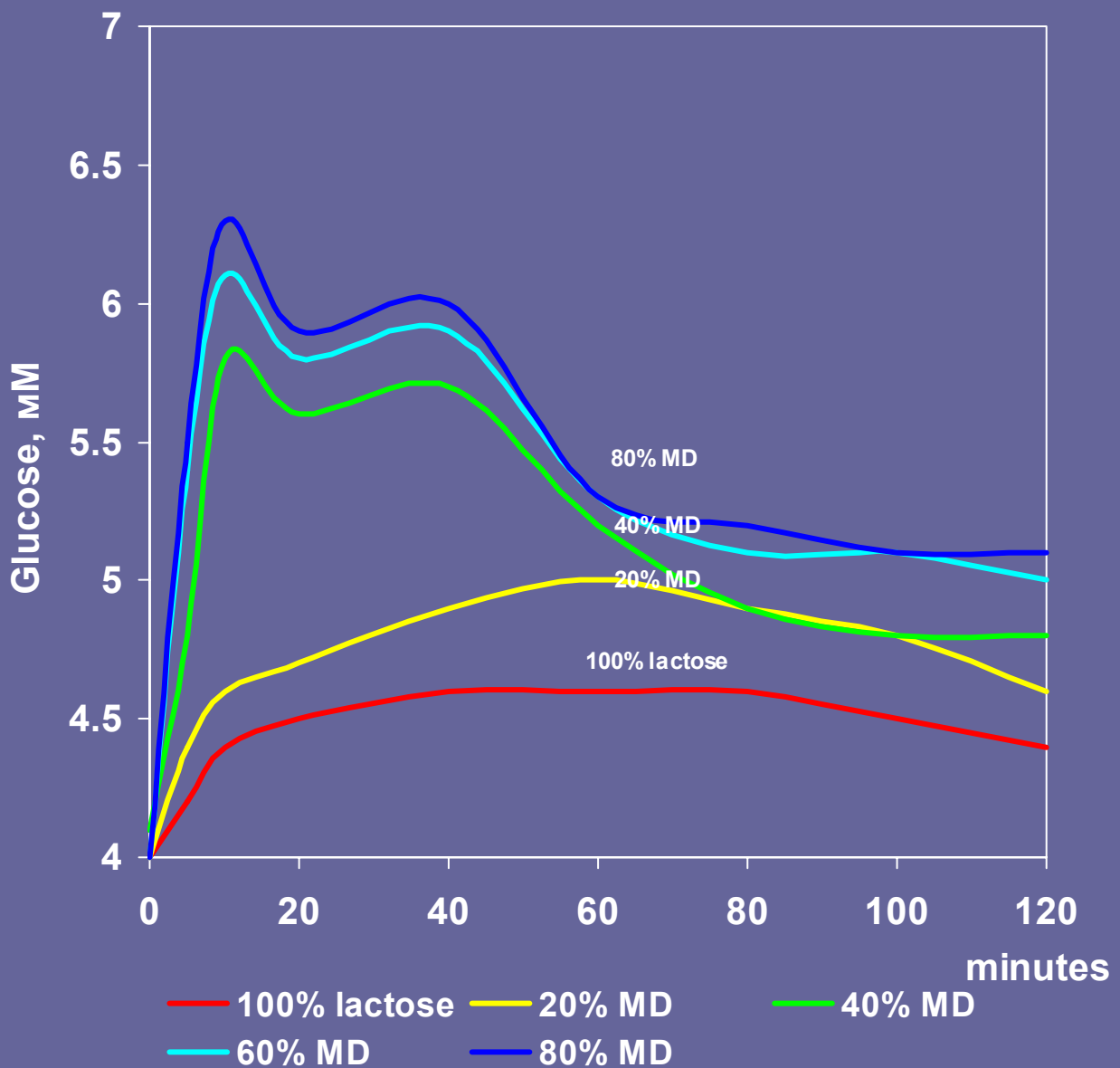
Milk carbohydrates	Grams per liter
Lactose	49-95
Oligosaccharides*	6
Fucose	1,3
Glucosamine	0,7-0,8
Galactosamine	0,0-0,04
N-Acetylneuraminic acid	0,63
Myoinositol	0,39-0,56
Citric acid	0,35-1,25

\* Breast milk contains at least 25 different oligosaccharides, including lacto-N-tetraose (0,5 g/L) and in person of the Lewis phenotype Le(a-b+) 2'-fucosidolactose (0,3 g/L)

## Maltodextrine, and glucose glycemic index

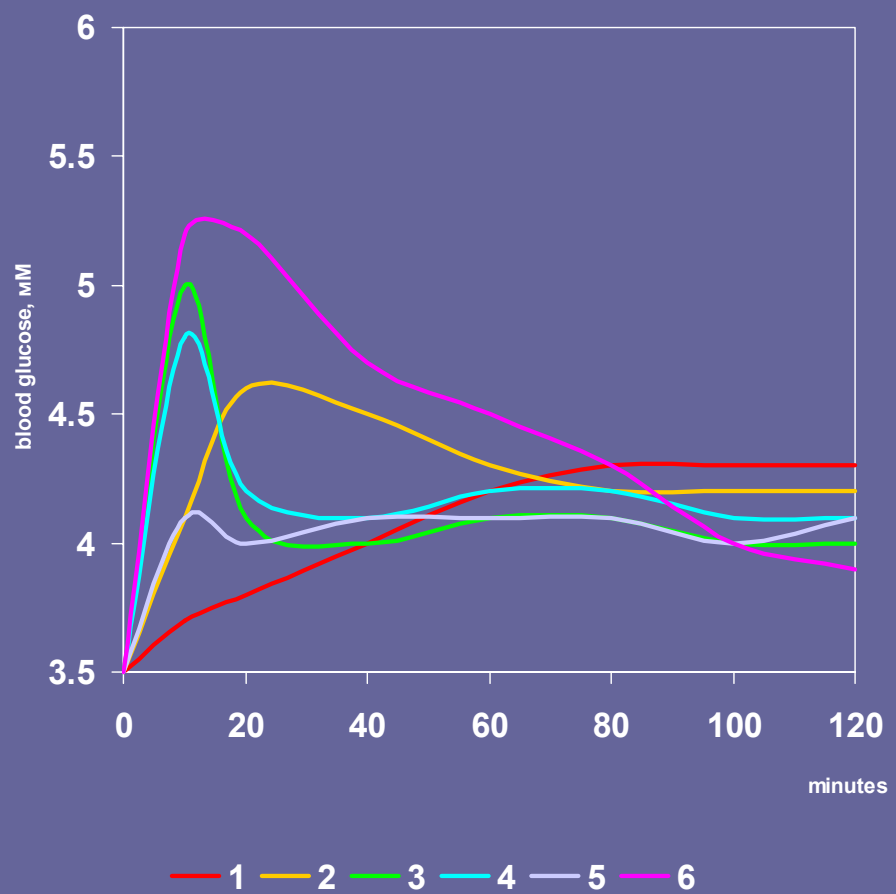


# Lactose and maltodextrine mixture glycemic index.



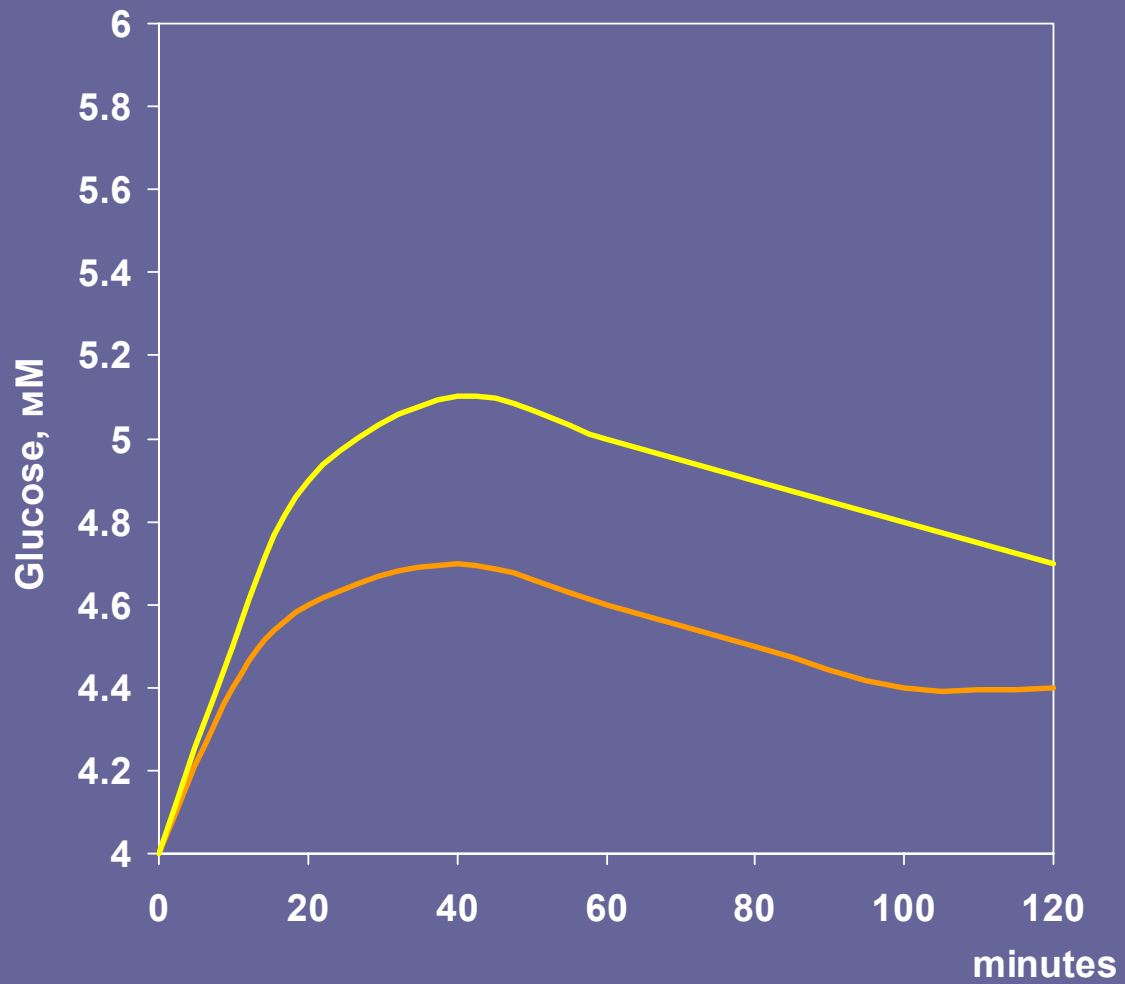
# Infant nutrition mixtures glycemic index

- **1**
- 56% L
- **2**
- 5% S,  
38% L,  
13% MD
- **3**
- 5% S,  
29% L,  
22% MD
- **4**
- 5% S,  
29% L,  
22% MD
- **5**
- 45% L,  
11% MD
- **6**
- 11% S,  
45% MD



Lactose – (L)  
 Sucrose – (S)  
 Maltodextrine – (MD)

## Glycemic index of $\alpha$ - & $\beta$ -lactose



- $\beta$ -lactose
- $\alpha$ -lactose

## intestine hydrolysis topography of $\alpha$ - & $\beta$ - lactose

