Poliklinika Breyer

Nalaz crijevnog mikrobioma

Izvješće o mikrobiomu

Poliklinika Breyer

ID uzorka	Uzorkovano	Analizirano	Ime i prezime	Datum rođenja	Uzorak	Laboratorij
33333333	24. 03. 2025.	04. 04. 2025.	Max Mustermann	10. 10. 1982.	Stolica	labors.at

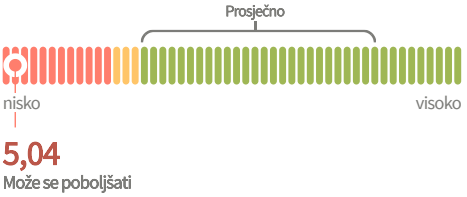
1. Zdravlje mikrobioma

Mikrobna raznolikost

Ukupna raznolikost vaših crijevnih bakterija mogla bi biti bolja. Naši savjeti pomoći će vam ojačati crijevni mikrobiom i unaprijediti vaše zdravlje.

Bogatstvo vrsta: 203 (Prosječno : 202-322)

Ujednačenost vrsta : 0,66 (Prosječno : 0,72-0,78)



Dodatne informacije

Mikrobna raznolikost opisuje raznolikost vašeg crijevnog mikrobioma i sastoji se od bogatstva vrsta i ujednačenosti vrsta. Raznolikost je najvažniji parametar za analizu zdravlja vašeg crijevnog mikrobioma. Ona mjeri koliko je različitih bakterijskih vrsta (bogatstvo vrsta) prisutno u crijevima i koliko su ravnomjerno raspoređene među pojedinim vrstama (ujednačenost vrsta).

Bakterijska zajednica s visokom raznolikošću stoga se sastoji od mnogih različitih vrsta, a pojedinci su ravnomjerno raspoređeni.

Raznolikost se računa pomoću "Shannonova indeksa" – broja koji vidite u grafikonu. Ovaj indeks uzima u obzir i bogatstvo vrsta i ujednačenost (raspodjelu pojedinaca među tim vrstama). Što je vrijednost viša, to bolje!

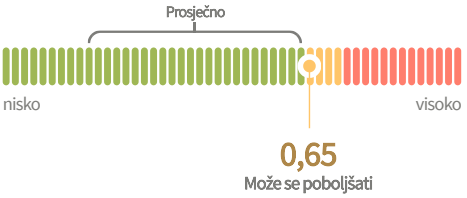
Istraživanja pokazuju da se niska raznolikost može povezati s raznim zdravstvenim problemima, poput upalne bolesti crijeva, pretilosti, metaboličkih poremećaja i autoimunih bolesti.

Bogatstvo vrsta: Pokazuje broj različitih bakterijskih vrsta u uzorku stolice. Visoka vrijednost ukazuje na veliko bogatstvo vrsta.

Ujednačenost vrsta: Daje informacije o tome koliko je uravnotežena učestalost različitih tipova bakterija u vašem crijevu. Ravnomjernija raspodjela pomaže spriječiti dominaciju nekoliko vrsta, čime bakterijska zajednica postaje manje podložna poremećajima ili nepovoljnim promjenama.

Indeks disbioze

Vaš crijevni mikrobiom je u neravnoteži, što ukazuje na disbiozu. Naši savjeti mogu vam pomoći da riješite ovaj problem, ojačate crijevne bakterije i vratite ravnotežu crijevnom mikrobiomu.



Dodatne informacije

Disbioza se odnosi na neravnotežu u vašem crijevnom mikrobiomu, kada potencijalno štetne bakterije brojčano nadmašuju korisne. Ova neravnoteža može biti posljedica različitih čimbenika, uključujući neuravnoteženu prehranu bogatu ultraprocesiranom hranom, životne navike poput kroničnog stresa, nedostatka tjelesne aktivnosti ili nedovoljno sna, kao i redovite upotrebe lijekova. Određena medicinska stanja, osobito upalne bolesti crijeva, također mogu povećati rizik od disbioze. Indeks disbioze kvantificira ozbiljnost ove neravnoteže i može biti koristan za praćenje promjena u mikrobiomu tijekom liječenja ili prilagodbi prehrane.

Enterotip

Enterotip 3 („Ruminococcus“) povezan je s prehranom koja je uravnotežena i bogata složenim ugljikohidratima, uključujući vlakna.

Enterotip 3: Ruminococcus

Dodatne informacije

Enterotipovi kategoriziraju crijevni mikrobiom u tri dominantne bakterijske skupine, koje čine „osnovni mikrobiom” tijekom ranih godina života, ponajprije pod utjecajem genetskih čimbenika i prehrambenih navika. Postoje dokazi da vaš enterotip može utjecati na to koju hranu možete posebno dobro metabolizirati i koliko učinkovito se vitamini proizvode u vašem crijevu. Dugoročne prehrambene navike, zajedno s dobi, zdravstvenim stanjem i primjenom lijekova, mogu utjecati na vaš enterotip.

Imajte na umu da ova klasifikacija i vaš rezultat pokazuju samo sklonost te se tipovi mogu preklapati.

Enterotip 3

Enterotip 3 obilježen je dominacijom bakterijskog roda Ruminococcus. Ovaj enterotip osobito je čest kod osoba s miješanom prehranom. Bakterije Ruminococcus brzo i učinkovito razgrađuju neprobavljive sastojke hrane te ih pretvaraju u tvari koje pogoduju zdravlju, poput kratkolančanih masnih kiselina. Ruminococcus proizvodi više enzima koji mogu razgraditi neprobavljive ugljikohidrate, poput vlakana, i pretvoriti ih u energiju. Međutim, te bakterije mogu i oštetiti crijevnu sluznicu razgrađujući šećerno-proteinske komplekse prisutne u njoj.

Enterotip 1

Enterotip 1 ("Bacteroides") povezuje se s prehranom bogatom namirnicama životinjskog podrijetla.

Enterotip 2

Enterotip 2 ("Prevotella") povezuje se s prehranom koja se temelji na biljkama, bogatom voćem, povrćem, mahunarkama i cjelovitim žitaricama.

2. Interakcija crijevo–tijelo

Crijevno-imunološka os

Visoka podrška vašem imunološkom sustavu

Čini se da sastav vaših crijevnih bakterija dobro podupire vaš imunološki sustav.

Dodatne informacije

Os crijevo–imunitet opisuje povezanost i interakciju između crijeva i imunološkog sustava tijela. Više od 70% imunološkog sustava nalazi se u crijevima i podupiru ga bakterije koje tamo žive. Određene bakterije aktiviraju imunološke stanice ili reguliraju njihovu aktivnost te proizvode protuupalne tvari poput kratkolančanih masnih kiselina. Zdravlje vašeg crijevnog mikrobioma ključno je za snažan imunološki sustav.

Upalni potencijal

Moguće je da imate upalu u crijevima. Vaš upalni potencijal je povišen. Naši savjeti mogu vam pomoći povećati broj i aktivnost protuupalnih bakterija.

Visok upalni potencijal

Vaš rezultat sastoji se od 4 metabolička puta za proizvodnju LPS-a:

- Šećerni gradivni blokovi za LPS
- Prošireni LPS moduli
- Površinski antigeni
- Prekursor za LPS

Dodatne informacije

Upalni potencijal u vašim crijevima može se izračunati pomoću **lipopolisaharida (LPS)**. LPS su molekule koje se nalaze u staničnim stijenkama određenih bakterija. Najnovija istraživanja pokazuju kako sastav crijevnog mikrobioma (uključujući vrste i količine bakterija koje proizvode LPS) utječe na imunološki sustav u crijevima.

Određene bakterije mogu koristiti opisane metaboličke putove za proizvodnju LPS-a. Ako u crijevima postoji previše bakterija koje proizvode LPS, povećava se potencijal za upalu.

Osim toga, indeks disbioze i snaga imuniteta važni su parametri koji mogu utjecati na upalni potencijal u crijevima.

Os crijevo–koža

Čini se da vaš crijevni mikrobiom podupire zdravlje kože.

Dodatne informacije

Os crijevo–koža opisuje povezanost između crijevnog mikrobioma i zdravlja kože. Kožne bolesti poput akni, neurodermatitisa i psorijaze često su uzrokovane upalnim procesima u tijelu, koji se zatim očituju na površini kože. Crijevne bakterije mogu izravno regulirati imunološki sustav i upalne procese u tijelu. Stoga je moguće donijeti zaključke o zdravlju kože analizom bakterija pronađenih u uzorku stolice.

Upravljanje tjelesnom težinom

Vaše crijevne bakterije mogle bi vam bolje pomoći u kontroli tjelesne težine. Ako težite zdravstvenim ciljevima, potražite dodatni individualni savjet od liječnika.

Dodatne informacije

Sastav crijevnih bakterija utječe na različite aspekte metabolizma, poput stvaranja energije iz hrane. Nekoliko studija pokazuje da crijevne bakterije imaju ulogu u regulaciji tjelesne težine. Neke su bakterije povezane s vitkom građom, dok druge mogu pridonijeti pretilosti.

Vaša crijeva mogu sadržavati i bakterije povezane s pothranjenošću i one povezane s prekomjernom tjelesnom težinom.

Drugi važni čimbenici u regulaciji tjelesne težine uključuju mikrobnu raznolikost i kratkolančane masne kiseline koje proizvode bakterije.

3. Zdravlje crijeva

Sindrom propusnog crijeva

Sastav vaših crijevnih bakterija ukazuje na mogući sindrom propusnog crijeva. Ako patite od probavnih tegoba ili simptoma, preporučujemo da se obratite liječniku.

Dodatne informacije

Sindrom propusnog crijeva opisuje povećanu propusnost crijevne sluznice. Ona regulira koje tvari prolaze iz crijeva u krvotok. Ako je crijevna sluznica oštećena, neželjene tvari mogu ući u tijelo i potaknuti upalu. Za održavanje netaknute crijevne sluznice ključan je zdrav crijevni mikrobiom. Korisne crijevne bakterije pomažu u jačanju crijevne barijere i smanjenju upale. Imajte na umu da je visoka raznolikost presudna za očuvanje zdrave crijevne sluznice.

S druge strane, ako su vaše crijevne bakterije u neravnoteži, određene se bakterije mogu prekomjerno razmnožiti i pretjerano razgrađivati stanice sluznice, čineći crijevnu sluznicu još „propusnijom". To može dovesti do sindroma propusnog crijeva. Oštećena crijevna sluznica povezuje se s povećanim rizikom od kronične upale, intolerancija na hranu, autoimunih bolesti, sindroma iritabilnog crijeva i kožnih bolesti, između ostalog.

Sindrom iritabilnog crijeva

Niska sklonost sindromu iritabilnog crijeva

Čini se da ne postoji povezanost između vaših crijevnih bakterija i sindroma iritabilnog crijeva.

Dodatne informacije

Sindrom iritabilnog crijeva (IBS) čest je gastrointestinalni poremećaj koji se očituje simptomima poput proljeva i/ili zatvora, nadutosti i bolova u trbuhu. Studije pokazuju da oboljeli često imaju nepovoljan sastav i manju raznolikost crijevnih bakterija u usporedbi s osobama bez IBS-a. Postoji niz uzroka koji mogu potaknuti sindrom iritabilnog crijeva ili pogoršati simptome. Čini se da psihološki čimbenici, poput stresa, imaju osobito važnu ulogu. Osim toga, pothranjenost, nedostatak nutrijenata, druge bolesti, toksini, manjak želučane kiseline, lijekovi, infekcije i neravnoteža u crijevnom mikrobiomu ubrajaju se među moguće okidače.

SIBO

Visoka sklonost SIBO-u

Vaš crijevni mikrobiom ukazuje na mogući prekomjerni rast bakterija u tankom crijevu.
Ako imate simptome, preporučujemo da se obratite liječniku.

Dodatne informacije

SIBO (prekomjerni rast bakterija u tankom crijevu) označava stanje u kojem dolazi do pretjeranog umnažanja bakterija u tankom crijevu. Uobičajeno, tanko crijevo sadrži znatno manje bakterija nego debelo crijevo. Kod SIBO-a, međutim, povećava se prisutnost bakterija iz debelog crijeva u tankom crijevu. To se najčešće događa zbog usporene probave ili anatomskih promjena nakon operacije. Najčešći simptom je nadutost, no mogu se javiti i drugi probavni poremećaji te nedostatak hranjivih tvari (posebno vitamina B12).

Istraživanja pokazuju da prekomjerni rast bakterija u tankom crijevu također utječe na sastav bakterija u debelom crijevu. Uzorak stolice stoga može dati naznake o mogućoj prisutnosti SIBO-a. Ako je nalaz pozitivan, preporučuje se konzultirati liječnika i napraviti dodatni test daha.

Osjetljivost na gluten

Niska sklonost osjetljivosti na gluten

Sastav vašeg crijevnog mikrobioma ne daje dokaze o osjetljivosti na gluten. Čini se da hrana koja sadrži gluten ne uzrokuje nikakve simptome.

Dodatne informacije

Osjetljivost na gluten odnosi se na reakciju na gluten koja nije povezana s celijakijom (autoimunim odgovorom) ili alergijom na pšenicu. Gluten je protein koji se nalazi u žitaricama poput pšenice, pira, raži i ječma. Njegova konzumacija kod osoba s osjetljivošću na gluten može dovesti do probavnih smetnji i simptoma poput kroničnog umora i glavobolja.

Na temelju znanstvenih studija danas je moguće uspostaviti poveznicu između sastava crijevnog mikrobioma i potencijalne osjetljivosti na gluten.

4. Blagostanje

Mentalno blagostanje

Visoka sklonost mentalnoj neravnoteži

Vaši rezultati ukazuju na neravnotežu u osi crijevo–mozak, što može utjecati na raspoloženje, odgovor na stres ili kognitivne funkcije. Naši savjeti mogu pomoći u njegovanju vašeg mikrobioma i poduprijeti bolje mentalno zdravlje.

Dodatne informacije

Postoji snažna povezanost između mentalnog zdravlja i crijevnog mikrobioma, koja se često naziva „os crijevo–mozak“. To znači da bakterije u vašem crijevu mogu komunicirati s vašim mozgom i utjecati na njegovu funkciju. Određene crijevne bakterije mogu proizvoditi tvari poput neurotransmitera, metabolita i hormona koji šalju signale mozgu i utječu na njegov rad. Promjene u njihovim razinama mogu utjecati na raspoloženje te igrati ulogu u regulaciji socijalnog ponašanja, ponašanja sličnog depresiji i motivacije.

Komunikacija između crijeva i mozga dvosmjerna je. To znači da ne utječe samo crijevo na mozak, već i mozak može utjecati na crijeva. Primjerice, stres ili snažna emocionalna stanja mogu dovesti do promjena u funkciji crijeva i narušiti ravnotežu crijevnih bakterija.

Fizičko blagostanje

Visoka sklonost tjelesnoj neravnoteži

Vaše crijevne bakterije pokazuju znakove neravnoteže koja bi mogla utjecati na vašu fizičku kondiciju i vitalnost. Naši savjeti mogu vam pomoći da vratite ravnotežu mikrobioma i podržite svoje fizičko blagostanje.

Dodatne informacije

Redovita tjelesna aktivnost može pozitivno utjecati na sastav crijevnog mikrobioma povećavajući raznolikost crijevnih bakterija i podupirući rast korisnih bakterija koje proizvode kratkolančane masne kiseline. Odnos između tjelesne aktivnosti i crijevnog mikrobioma je dvosmjeran: tjelesna aktivnost ne utječe samo na mikrobiom, već i sastav crijevne flore pridonosi tjelesnoj izvedbi. Studije su pokazale da promjene mikrobioma kroz tjelesnu aktivnost mogu pomoći u prevenciji metaboličkih bolesti, jačanju imunološkog sustava i poticanju općeg blagostanja. Aktivni stil života stoga je ključan za očuvanje zdravlja crijeva i fizičkog blagostanja.

5. Metaboličko zdravlje

Regulacija šećera u krvi

Visoka sklonost nestabilnoj regulaciji šećera u krvi

Vaš crijevni mikrobiom mogao bi bolje podupirati osjetljivost na inzulin i regulaciju šećera u krvi. Naši savjeti mogu pomoći ojačati crijevne bakterije i poboljšati ravnotežu šećera u krvi.

Dodatne informacije

Crijevni mikrobiom ima ključnu ulogu u regulaciji razine šećera u krvi utječući na metabolizam, osjetljivost na inzulin i upalne procese. Određene korisne bakterije pomažu razgraditi prehrambena vlakna u kratkolančane masne kiseline (SCFA), koje poboljšavaju osjetljivost na inzulin i smanjuju nagle skokove šećera u krvi. Osim toga, crijevni mikrobiom komunicira s endokrinim sustavom utječući na lučenje hormona poput glukagonu sličnog peptida-1 (GLP-1), koji potiče oslobađanje inzulina i pomaže održavanju stabilne razine šećera u krvi. Neravnoteža crijevnih bakterija (disbioza) povezuje se s povećanim rizikom od inzulinske rezistencije, dijabetesa tipa 2 i metaboličkih poremećaja. Njegovanjem raznolikog i zdravog crijevnog mikrobioma moguće je pozitivno utjecati na regulaciju šećera u krvi i cjelokupno zdravlje.

Regulacija krvnog tlaka

Visoka sklonost disreguliranoj regulaciji krvnog tlaka

Vaš crijevni mikrobiom mogao bi bolje podupirati regulaciju krvnog tlaka. Naši savjeti mogu pomoći u ponovnom uspostavljanju ravnoteže crijevnih bakterija i poduprijeti zdravlje srca.

Dodatne informacije

Zdrav crijevni mikrobiom ima ključnu ulogu u regulaciji krvnog tlaka. Studije sugeriraju da hipertenzija može biti povezana s narušenom crijevnom florom i oslabljenom crijevnom barijerom, što omogućuje štetnim tvarima da uđu u tijelo i potaknu upalu, koja dodatno povisuje krvni tlak. Određene bakterije koje proizvode kratkolančane masne kiseline (SCFA) i imaju protuupalne učinke često su manje zastupljene kod osoba s hipertenzijom. Osim toga, crijevni mikrobi utječu na ključne čimbenike uključene u regulaciju krvnog tlaka, poput angiotenzina i signalizacije dušičnog oksida.

Os crijevo–jetra

Visoka sklonost neravnoteži u osi crijevo–jetra

Sastav vaših crijevnih bakterija ukazuje na moguću neravnotežu u osi crijevo–jetra. Slijedeći naše savjete možete poduprijeti zdrav mikrobiom i crijevnu barijeru, što zauzvrat pomaže u održavanju optimalne funkcije jetre.

Dodatne informacije

Os crijevo–jetra odnosi se na blisku povezanost između mikrobioma u crijevima i zdravlja jetre. Ta su dva organa izravno povezana portalnom venom, koja prenosi tvari iz crijeva u jetru. Ova izravna veza znači da neravnoteža u crijevima može imati značajan utjecaj na jetru – i obrnuto.

Bolesti jetre poput masne jetre i upale često su povezane s crijevnom disbiozom – stanjem u kojem dolazi do smanjenja mikrobne raznolikosti, povećanja potencijalno štetnih bakterija te smanjenja korisnih bakterija koje proizvode kratkolančane masne kiseline (SCFA). Kada je crijevna barijera oslabljena, više štetnih tvari može ući u krvotok i dospjeti do jetre. To može preopteretiti zaštitne funkcije jetre i dovesti do upale, pojačanog imunološkog odgovora, oštećenja jetre i povećanog rizika od infekcija. Time se dodatno može povećati propusnost crijevne barijere i negativno utjecati na mikrobiom – stvarajući začarani krug.

Aktivnost štitnjače

Čini se da vaše crijevne bakterije podržavaju zdravu funkciju štitnjače potičući dobru apsorpciju hranjivih tvari i hormonsku ravnotežu, kao i doprinoseći snažnom imunološkom sustavu.

Niska sklonost hipertireozi

Niska sklonost hipotireozi

Dodatne informacije

Crijevni mikrobiom usko je povezan s aktivnošću štitnjače, osobito putem svog utjecaja na imunološki sustav. Crijevne bakterije imaju ključnu ulogu u regulaciji imunološkog sustava, koji je presudan u razvoju autoimunih bolesti štitnjače – poput Hashimotova tireoiditisa (često povezanog s hipotireozom) i Gravesove bolesti (često povezane s hipertireozom).

Promjene u mikrobiomu mogu dovesti do poremećaja u regulaciji imuniteta i upale, čime se potiče razvoj hipotireoze. Također mogu narušiti apsorpciju važnih nutrijenata poput joda, selena, željeza i cinka, koji su nužni za proizvodnju hormona štitnjače.

Naši podaci pokazuju da hipertireoza osobito dovodi do gubitka mikrobne raznolikosti u crijevima, što značajno narušava funkciju imuniteta i stabilnost crijevne barijere. Smanjena raznolikost mogla bi toliko poremetiti imunološki sustav da dovede do prekomjerne aktivnosti štitnjače.

6. Popisi bakterija

Omjer F/B

Vaš omjer F/B: 1,26

Referenca (%) 1,08 - 2,03

Bakterija	Učestalost (%)	Referenca (%)
Bacteroidota	41,57	30,88 - 45,11
Firmicutes	52,46	48,28 - 63,47

Probiotičke bakterije

Bakterija	Učestalost (%)	Referenca (%)
Akkermansia muciniphila	0,00	0,00 - 1,56
Bifidobacterium	0,45	0,03 - 0,66
Bifidobacterium longum	0,19	0,00 - 0,36
Lactobacillus	0,00	0,00 - 0,01

Bakterije koje proizvode mucin

Bakterija	Učestalost (%)	Referenca (%)
Akkermansia muciniphila	0,00	0,00 - 1,56
Bacteroides fragilis	0,22	0,00 - 0,26

Bakterija	Učestalost (%)	Referenca (%)
Bacteroides thetaiotaomicron	↑ 0,92	0,02 - 0,65
Bifidobacterium	0,45	0,03 - 0,66
Faecalibacterium prausnitzii	9,56	3,44 - 11,31
Lactobacillus	0,00	0,00 - 0,01

Bakterije koje proizvode butirat

Bakterija	Učestalost (%)	Referenca (%)
Anaerostipes	↑ 0,45	0,04 - 0,36
Coprococcus	↓ 0,00	0,06 - 1,90
Eubacterium hallii group	↑ 0,36	0,00 - 0,09
Faecalibacterium prausnitzii	9,56	3,44 - 11,31
Roseburia	↑ 0,36	0,00 - 0,16
Subdoligranulum	1,90	0,30 - 2,50

Bakterije koje reduciraju sulfat

Bakterija	Učestalost (%)	Referenca (%)
Bilophila	0,17	0,02 - 0,25
Bilophila wadsworthia	0,17	0,00 - 0,24
Desulfovibrio	0,00	0,00 - 0,23

Pregled svih bakterija

Koljeno	Rod	Učestalost (%)	Referenca (%)
Firmicutes	Acetanaerobacterium	0,01	Nema podataka
Firmicutes	Agathobacter	0,34	Nema podataka
Verrucomicrobiota	Akkermansia	0,00	0,00 - 1,94
Bacteroidota	Alistipes	2,48	1,35 - 4,96
Firmicutes	Anaerofilum	0,00	0,00 - 0,01
Firmicutes	Anaerostipes	↑ 0,45	0,04 - 0,36
Firmicutes	Anaerotruncus	0,00	0,00 - 0,01
Bacteroidota	Bacteroides	↑ 36,65	11,89 - 31,62
Bacteroidota	Barnesiella	↓ 0,00	0,13 - 2,04

Koljeno	Rod	Učestalost (%)	Referenca (%)
Actinobacteriota	Bifidobacterium	0,45	0,03 - 0,66
Desulfobacterota	Bilophila	0,17	0,02 - 0,25
Firmicutes	Blautia	0,00	0,00 - 0,16
Firmicutes	Butyricicoccus	0,11	0,11 - 0,47
Bacteroidota	Butyricimonas	↑ 0,72	0,00 - 0,22
Firmicutes	CAG-56	0,00	0,00 - 0,12
Firmicutes	Christensenellaceae R-7 group	↓ 0,00	0,05 - 1,83
Firmicutes	Clostridium sensu stricto 1	0,00	0,00 - 0,11
Firmicutes	Colidextribacter	↑ 0,34	0,05 - 0,19
Actinobacteriota	Collinsella	↓ 0,00	0,02 - 0,22
Bacteroidota	Coprobacter	0,00	0,00 - 0,24
Firmicutes	Coprococcus	↓ 0,00	0,06 - 1,90
Firmicutes	Defluviitaleaceae UCG-011	↑ 0,04	0,00 - 0,03
Desulfobacterota	Desulfovibrio	0,00	0,00 - 0,23
Firmicutes	Dialister	0,00	0,00 - 2,50
Firmicutes	Dielma	↑ 0,05	0,00 - 0,01
Firmicutes	DTU089	↑ 0,03	0,00 - 0,02
Actinobacteriota	Eggerthella	0,03	Nema podataka
Firmicutes	Eisenbergiella	↑ 0,56	0,00 - 0,02
Actinobacteriota	Enterorhabdus	↑ 0,02	0,00 - 0,01
Firmicutes	Erysipelatoclostridium	↑ 0,06	0,00 - 0,05
Firmicutes	Erysipelotrichaceae UCG-003	↑ 0,53	0,03 - 0,33
Proteobacteria	Escherichia-Shigella	0,00	0,00 - 0,07
Firmicutes	Eubacterium eligens group	↓ 0,00	0,25 - 2,68
Firmicutes	Eubacterium hallii group	↑ 0,36	0,00 - 0,09
Firmicutes	Eubacterium nodatum group	0,00	0,00 - 0,02
Firmicutes	Eubacterium oxidoreducens group	0,00	0,00 - 0,05
Firmicutes	Eubacterium ruminantium group	0,00	0,00 - 0,13
Firmicutes	Eubacterium siraeum group	↑ 1,86	0,01 - 1,49

Koljeno	Rod	Učestalost (%)	Referenca (%)
Firmicutes	Eubacterium ventriosum group	0,03	0,01 - 0,15
Firmicutes	Eubacterium xylanophilum group	0,00	0,00 - 0,37
Firmicutes	Faecalibacterium	↑ 27,32	6,02 - 15,78
Firmicutes	Family XIII AD3011 group	↑ 0,12	0,00 - 0,08
Firmicutes	Family XIII UCG-001	↑ 0,07	0,00 - 0,03
Firmicutes	Flavonifractor	↑ 0,28	0,00 - 0,06
Firmicutes	Fournierella	0,00	0,00 - 0,01
Firmicutes	GCA-900066575	0,02	0,01 - 0,08
Proteobacteria	Haemophilus	0,00	0,00 - 0,12
Firmicutes	Holdemanella	0,00	0,00 - 0,09
Firmicutes	Holdemania	↑ 0,07	0,00 - 0,05
Firmicutes	Hungatella	0,03	Nema podataka
Firmicutes	Hydrogenoanaerobacterium	0,00	0,00 - 0,01
Firmicutes	Intestinibacter	0,02	0,00 - 0,03
Firmicutes	Intestinimonas	↑ 0,18	0,00 - 0,06
Firmicutes	Lachnoclostridium	↑ 1,78	0,15 - 0,82
Firmicutes	Lachnospira	0,91	0,35 - 2,63
Firmicutes	Lachnospiraceae FCS020 group	↓ 0,00	0,03 - 0,37
Firmicutes	Lachnospiraceae NC2004 group	↓ 0,00	0,02 - 1,00
Firmicutes	Lachnospiraceae ND3007 group	↓ 0,00	0,24 - 2,58
Firmicutes	Lachnospiraceae NK4A136 group	0,00	0,00 - 0,28
Firmicutes	Lachnospiraceae UCG-001	↓ 0,00	0,02 - 0,51
Firmicutes	Lachnospiraceae UCG-004	0,05	0,00 - 0,29
Firmicutes	Lachnospiraceae UCG-008	0,00	0,00 - 0,05
Firmicutes	Lachnospiraceae UCG-010	↓ 0,00	0,03 - 0,27
Firmicutes	Lactobacillus	0,00	0,00 - 0,01
Firmicutes	Lactococcus	0,00	0,00 - 0,01
Firmicutes	Marvinbryantia	0,00	0,00 - 0,02
Firmicutes	Merdibacter	0,00	0,00 - 0,01

Koljeno	Rod	Učestalost (%)	Referenca (%)
Firmicutes	Monoglobus	↓ 0,00	0,07 - 0,37
Firmicutes	Moryella	0,00	0,00 - 0,05
Firmicutes	Negativibacillus	0,05	0,00 - 0,08
Firmicutes	NK4A214 group	0,00	0,00 - 0,95
Bacteroidota	Odoribacter	↑ 0,64	0,11 - 0,41
Firmicutes	Oscillibacter	↑ 0,61	0,03 - 0,31
Firmicutes	Oscillospira	0,08	0,00 - 0,11
Proteobacteria	Oxalobacter	0,00	0,00 - 0,03
Firmicutes	Paludicola	2,16	Nema podataka
Bacteroidota	Parabacteroides	1,09	0,94 - 3,59
Bacteroidota	Paraprevotella	0,00	0,00 - 0,36
Proteobacteria	Parasutterella	0,17	0,01 - 0,80
Firmicutes	Peptococcus	0,00	0,00 - 0,03
Firmicutes	Phascolarctobacterium	1,23	0,00 - 2,07
Firmicutes	Phocea	↑ 0,01	0,00 - 0,01
Bacteroidota	Prevotella	0,00	0,00 - 11,55
Firmicutes	Pseudoflavonifractor	↑ 0,11	0,00 - 0,01
Firmicutes	Romboutsia	0,00	0,00 - 0,01
Firmicutes	Roseburia	↑ 0,36	0,00 - 0,16
Firmicutes	Ruminococcus	↓ 0,00	0,15 - 1,95
Firmicutes	Ruminococcus gauvreauii group	0,03	Nema podataka
Firmicutes	Ruminococcus torques group	↑ 0,16	0,00 - 0,11
Firmicutes	Sellimonas	0,01	Nema podataka
Actinobacteriota	Senegalimassilia	0,00	0,00 - 0,02
Actinobacteriota	Slackia	0,00	0,00 - 0,02
Firmicutes	Streptococcus	0,04	0,03 - 0,31
Firmicutes	Subdoligranulum	1,90	0,30 - 2,50
Proteobacteria	Sutterella	↑ 4,04	0,02 - 2,45
Firmicutes	Terrisporobacter	0,00	0,00 - 0,02

Koljeno	Rod	Učestalost (%)	Referenca (%)
Patescibacteria	TM7x	0,01	0,00 - 0,03
Firmicutes	Turicibacter	0,00	0,00 - 0,06
Firmicutes	Tuzzerella	0,02	Nema podataka
Firmicutes	Tyzzerella	0,00	0,00 - 0,11
Firmicutes	UBA1819	↑ 0,11	0,00 - 0,05
Firmicutes	UCG-002	↓ 0,00	0,03 - 0,63
Firmicutes	UCG-003	0,09	0,00 - 0,18
Firmicutes	UCG-005	↓ 0,00	0,02 - 0,54
Firmicutes	UCG-009	0,00	0,00 - 0,01
Firmicutes	Veillonella	0,00	0,00 - 0,15
Verrucomicrobiota	Victivallis	0,00	0,00 - 0,24

7. Preporuke

Mikrobno zdravlje

Fermentirana hrana

Fermentirana hrana osigurava probiotike koji podržavaju uravnotežen crijevni mikrobiom, smanjuju disbiozu i poboljšavaju probavu. Jačaju crijevnu stijenku, potiču raznoliku crijevnu floru i smanjuju crijevnu propusnost. Redovita konzumacija također jača imunološki sustav i može se suprotstaviti upali, potičući cjelokupno zdravlje.

Uključite fermentiranu hranu u svoje obroke barem 3-4 puta tjedno:

- (Biljni) jogurt i kefir: Započnite dan jogurtom ili kefirom u smoothieju ili müsliju ili ih uživajte kao međuobrok sa svježim bobicama i orašastim plodovima.
- Kiseli kupus i kimchi: Dodajte ove ljute priloge svojim obrocima za dodatni okus i hranjive tvari. Odaberite veganski kimchi ako ste alergični na ribu.
- Kombucha: Zamijenite slatka pića kombuchom kao osvježavajućom alternativom.
- Miso: Dodajte miso u juhe ili ga koristite kao pojačivač okusa u preljevima. Miso je dostupan u raznim varijantama napravljenim od soje, slanutka, ječma ili riže.

Enterotip 3 – dominantno Ruminococcus

Enterotip 3 povezan je s uravnoteženom prehranom koja uključuje i životinjsku i biljnu hranu. Vrste Ruminococcus mogu učinkovito razgraditi rezistentni škrob, pa je uključivanje ovih škrobova posebno korisno za zdravlje crijeva. Raznolika prehrana koja skladno kombinira biljne i životinjske proteine igra središnju ulogu u podržavanju ovog enterotipa.

Ojačajte svoj mikrobiom uključivanjem rezistentnog škroba i raznih izvora proteina:

- Otporni škrob: Redovito uključujte ohlađeni krumpir, rižu i mahunarke u svoje obroke. Otporni škrob se također nalazi u indijskim oraščićima, sirovim zobenim pahuljicama i blago zrelim bananama.
- Kombinirajte biljne i životinjske proteine: Miješajte i kombinirajte proteine za optimalno iskorištavanje proteina. Na primjer: jaje i grah sa špinatom i krumpirom, grah s kukuruzom, leća dal sa smeđom rižom, humus s kruhom od cjelovitih žitarica.
- Zdrave masti i dovoljna količina tekućine: Konzumirajte zdrave masti poput maslinovog ulja, sezama i avokada. Pijte puno vode kako biste spriječili zatvor, čest problem kod ovog enterotipa.

Povećajte unos vlakana

Hrana bogata vlaknima podržava raznolik mikrobiom hranjenjem korisnih bakterija. Vlakna djeluju kao prebiotik, povećavajući mikrobnu raznolikost, smanjujući disbiozu i potičući zdravlje probavnog sustava. Raznolikost izvora vlakana poboljšava crijevnu regulaciju i pomaže u sprječavanju crijevnih problema.

Svakodnevno konzumirajte raznovrsnu hranu bogatu vlaknima:

- Cjelovite žitarice: Uključite zob, kvinoju i smeđu rižu u svoje obroke.
- Mahunarke: Dodajte grah, leću i slanutak u salate, juhe i pržena jela.
- Voće: Jedite jabuke, kruške i bobičasto voće kao međuobrok ili desert.
- Povrće: Brokulu, mrkvu i špinat koristite u glavnim jelima ili kao prilog.

Zdjela za doručak s bobičastim voćem i prosom

Sastojci:
1 šalica kuhanog prosa
1/2 šalice miješanog bobičastog voća (borovnice, jagode, kupine)
1 žlica chia sjemenki
1 šalica bademovog mlijeka
1-2 žličice meda ili maslaca od orašastih plodova (po želji)

Priprema:
1. Kuhano proso stavite u zdjelu.
2. Dodajte miješano bobičasto voće i chia sjemenke.
3. Prelijte napitak od badema preko toga.
4. Po želji prelijte medom ili maslacem od orašastih plodova.

Za prekrasan početak dana, prepun vlakana i antioksidansa.

Interakcija crijeva i tijela

Birajte zdrave masti

Zdrave masti, posebno omega-3 masne kiseline, važne su za smanjenje upale i podršku uravnoteženom crijevnom mikrobiomu. Ove masti doprinose održavanju zdravlja crijeva i povezane su s poboljšanom hidratacijom i teksturom kože. Različiti izvori zdravih masti u vašoj prehrani mogu poboljšati apsorpciju hranjivih tvari i potaknuti rast korisnih crijevnih bakterija.

Redovito uključujte zdrave masti u svoje obroke:

- Masna riba: Uključite losos, skušu ili sardine u redovitu prehranu.
- Orašasti plodovi: Grickajte šaku badema, pistacija ili oraha ili ih dodajte u kašu ili jogurt za dodatnu hrskavost.
- Sjemenke: Pospite chia sjemenke ili lanene sjemenke u smoothieje ili jogurt za dodatne hranjive tvari i vlakna.
- Avokado: Uključite avokado u salate ili sendviče ili ga uživajte kao namaz na kruhu od cjelovitih žitarica.

Svijest o antibioticima

Antibiotici mogu poticati rast patogenih bakterija poput Fusobacterium, što može uzrokovati upalu u tijelu. Nažalost, antibiotici ne ubijaju samo štetne bakterije, već i korisne vrste.

Pažljivo razgovarajte o upotrebi antibiotika sa svojim liječnikom:

- Procijenite potrebu zajedno sa svojim liječnikom: Pitajte se jesu li antibiotici zaista potrebni za vaše stanje.
- Alternativni pristupi: Uz podršku svog liječnika, istražite mogućnosti liječenja koje mogu biti učinkovite i bez upotrebe antibiotika.
- Postantibiotska njega: Uključite probiotike ili fermentiranu hranu u svoju prehranu nakon liječenja antibioticima kako biste pomogli u vraćanju zdravlja crijeva.

Obratite pažnju na vitamine B skupine

Osigurajte dovoljan unos vitamina B skupine kako biste podržali zdravlje crijeva i potaknuli protuupalna svojstva.

Uključite ove namirnice bogate vitaminima B skupine:

- Sjemenke suncokreta: Izvrstan izvor vitamina B skupine, idealne za međuobrok ili dodavanje u salate.
- Jaja: Svestrana namirnica koja se može uključiti u razne obroke zbog proteina i vitamina B skupine.
- Špinat i lisnato povrće: Bogati su esencijalnim hranjivim tvarima i mogu se koristiti u salatama, smoothiejima ili kuhanim jelima.
- Slanutak: Fantastične mahunarke koje pružaju vitamine B skupine i mogu se koristiti u salatama, humusu ili juhama.

Prženo povrće s kvinojom

Sastojci:
1 šalica kvinoje
2 šalice povrtnog temeljca
1 šalica cvjetića brokule
1 šalica nasjeckane paprike
1 šalica narezane mrkve
1 žlica maslinovog ulja
2 češnja češnjaka, nasjeckana
1 žlica soja sosa
1 čajna žličica naribanog đumbira

Priprema:
1. Isperite kvinoju pod mlazom hladne vode.
2. Zakuhajte povrtni temeljac i dodajte kvinoju. Smanjite vatru, poklopite i pirjajte 15 minuta.
3. Zagrijte maslinovo ulje u tavi i pržite češnjak i đumbir dok ne zamirišu.
4. Dodajte brokulu, papriku i mrkvu te pirjajte 5-7 minuta dok ne omekšaju.
5. Umiješajte kuhanu kvinoju i soja umak te dobro promiješajte.
6. Poslužite toplo i po želji ukrasite svježim začinskim biljem.

Hranjivo prženo jelo s kvinojom bogatom proteinima i šarenim povrćem.

Zdravlje crijeva

Obratite pažnju na mikronutrijente

Adekvatan unos vitamina, antioksidansa i polifenola ključan je za snažnu crijevnu barijeru. Nedostatak ovih hranjivih tvari može smanjiti prevalenciju A. muciniphile - ključne bakterije za zdravlje crijeva.

Obratite pozornost na hranu bogatu hranjivim tvarima:

- Bobičasto voće: Borovnice, maline i acai bobice pune su antioksidansa i vitamina - savršene su kao međuobrok ili za doručak.
- Lisnato povrće: Uključite povrće bogato hranjivim tvarima poput kelja i špinata u svoje obroke za dodatne zdravstvene prednosti.
- Zdravi orašasti plodovi i sjemenke: Orasi, lanene sjemenke i bademi pružaju esencijalne hranjive tvari i zdrave masti - koristite ih za ukrašavanje salata ili smoothieja.

Smanjite razinu stresa

Kronični stres može ozbiljno utjecati na zdravlje vaših crijeva, pogoršavajući simptome poput probavnih tegoba, nadutosti i neravnoteže. Uvođenjem tehnika smanjenja stresa možete potaknuti skladnije crijevno okruženje. Rješavanje stresa kroz svjesnost i promicanje smirenosti može imati pozitivne učinke na vaš mikrobiom i podržati bolju ravnotežu crijevnih bakterija.

Redovito koristite tehnike za smanjenje stresa:

- Joga: Redovito pohađajte satove joge kako biste potaknuli opuštanje.
- Meditacija: Odvojite vrijeme za meditaciju ili vježbe disanja.
- Svjesna prehrana: Obratite pozornost na svoje obroke, žvačite polako i uživajte u okusima.
- Šetnje u prirodi: Provedite vrijeme na otvorenom kako biste se opustili i odmorili.
- Hobiji: Bavite se aktivnostima u kojima uživate kako biste ublažili stres.

Integrirajte pseudožitarice

Pseudožitarice su prirodno bez glutena i bogate vlaknima, magnezijem, željezom i važnim vitaminima. Nude hranjivu alternativu konvencionalnim žitaricama i često ih bolje podnose osobe s osjetljivom probavom.

Uključite pseudožitarice bogate hranjivim tvarima u svoje obroke kako biste podržali zdravlje crijeva:

- Dodajte kvinoju kao prilog ili u salate i curryje.
- Koristite amarant za kašu za doručak, u juhama ili ga napuhnite u müsliju.
- Uživajte chia sjemenke u pudinzima, smoothiejima ili čak vodi za dodatna vlakna.
- U palačinke ili domaći kruh umiješajte heljdino brašno.

Prženo povrće s misom

Sastojci:
2 žlice miso paste
3 šalice miješanog povrća (mrkva, brokula, paprika)
1 žlica maslinovog ulja
2 mlada luka (samo zeleni dio), narezana na ploške
1 žlica soja sosa
2 žlice vode

Priprema:
1. U maloj zdjeli pomiješajte miso pastu, soja sos i vodu.
2. Zagrijte ulje u tavi, dodajte mladi luk i pržite dok ne zamiriše.
3. Dodajte povrće i kuhajte dok ne postane malo čvrsto na ugriz.
4. Dodajte miso smjesu i dobro promiješajte povrće.
5. Kuhajte još jednu minutu i poslužite vruće.

Izdašno jelo puno probiotika koji su korisni za crijeva.

Blagostanje

Održavajte redovito vrijeme za spavanje

Redoviti raspored spavanja ključan je za optimalnu proizvodnju serotonina i cjelokupno blagostanje. Budući da su crijevni mikrobiom i mozak usko povezani, redoviti noćni san može pomoći u održavanju ravnoteže u crijevima i poboljšati komunikaciju između crijeva i mozga. Dobar i dovoljan san potiče procese regeneracije tijela i smanjuje hormone stresa koji mogu negativno utjecati na crijevnu okolinu. Stoga redoviti odlasci u krevet igraju važnu ulogu u podršci osi crijeva i mozga.

Neke točke koje treba uzeti u obzir su:

- Izbjegavajte kofein i teške obroke prije spavanja.
- Stvorite opuštajuće okruženje za spavanje bez ometanja.
- Pridržavajte se redovitog vremena za spavanje, čak i vikendom.
- Izbjegavajte korištenje elektroničkih uređaja neposredno prije spavanja.
- Uvedite smirujuće rituale poput čitanja ili meditacije prije spavanja.

Isprobajte povremeni post

Povremeni post - odnosno svjesno planirane pauze od jedenja - može imati pozitivan učinak na zdravlje crijeva, a posebno na mikrobiom. Ove ciljane pauze daju korisnim crijevnim bakterijama vremena za regeneraciju, što može ojačati njihovu raznolikost i funkciju. Tijekom ovog razdoblja odmora, bakterije se mogu oporaviti i još učinkovitije obavljati svoje funkcije - poput podrške probavi, imunološkom sustavu i komunikaciji s mozgom. Ako se provodi svjesno i individualno, povremeni post može potaknuti ravnotežu u crijevima i dugoročno doprinijeti većoj vitalnosti, unutarnjoj ravnoteži i dobrobiti.

Imajte na umu sljedeće savjete:

- Započnite s ciklusom 16:8, što znači 16 sati posta i 8 sati jedenja.
- Izbjegavajte prerađenu hranu tijekom faze jedenja.
- Pijte puno vode kako biste optimalno podržali svoj post.
- Obratite pažnju na signale svog tijela i prilagodite ciklus ako je potrebno.

Uzmite dovoljno vitamina C

Vitamin C igra ključnu ulogu u podržavanju proizvodnje neurotransmitera, koji su neophodni za komunikaciju između neurona u mozgu. Osiguravanje adekvatne razine vitamina C može značajno poboljšati koncentraciju. Kao snažan antioksidans, vitamin C također štiti živčane stanice od oštećenja uzrokovanih slobodnim radikalima. Također potiče apsorpciju željeza, što može optimizirati opskrbu mozga kisikom.

Točke koje treba imati na umu:

- Povećajte konzumaciju voća i povrća bogatog vitaminom C, poput agruma, paprike i brokule.
- Nemojte prekuhavati hranu niti jesti sirovu kako biste smanjili gubitak vitamina C.
- Osigurajte dovoljno sna i dobro upravljanje stresom kako biste održali razinu vitamina C u tijelu.

Krumpir salata s otpornim škrobom i začinskim biljem

Sastojci:
500 g kuhanog i ohlađenog krumpira
2 žlice maslinovog ulja
1 žlica jabučnog octa
Sol i papar po ukusu
Svježe začinsko bilje: peršin, kopar i vlasac

Priprema:
1. Krumpir narežite na jednake ploške.
2. U velikoj zdjeli pomiješajte maslinovo ulje, jabučni ocat, sol i papar.
3. Dodajte krumpir u smjesu i lagano miješajte dok se dobro ne obloži.
4. Ukrasite svježim začinskim biljem i poslužite.

Korištenje kuhanog i ohlađenog krumpira povećava njihov sadržaj otpornog škroba te potiče zdravlje crijeva i opće dobrostanje podržavajući korisne bakterije.

Metaboličko zdravlje

Konzumirajte hranu bogatu polifenolima

Polifenoli – prirodni biljni spojevi – daju vrijedan doprinos zdravlju crijevno-jetrene osi. Oni posebno potiču rast korisnih crijevnih bakterija poput Bacteroides eggerthii, čime podržavaju uravnotežen i raznolik mikrobiom. Zahvaljujući svojim snažnim antioksidativnim i protuupalnim svojstvima, polifenoli ne samo da stabiliziraju crijevnu floru već i olakšavaju jetri njezine svakodnevne procese detoksikacije. Prehrana bogata hranom koja sadrži polifenole jača mikrobnu raznolikost i uravnotežuje fino usklađenu interakciju između crijeva i jetre.

Imajte na umu sljedeće točke:

- Uključite borovnice i maline u svoj svakodnevni doručak, na primjer, u kašu ili (biljni) jogurt. Bogate su polifenolima i podržavaju zdravlje jetre.
- Pijte šalicu zelenog čaja dnevno. Zeleni čaj je bogat polifenolima i ima protuupalna svojstva, što može podržati rad jetre.
- Uživajte u 1-2 komadića tamne čokolade. Birajte vrste s najmanje 85% kakaa, jer one imaju veći sadržaj polifenola.

Izbjegavajte visoko prerađenu hranu

Visoko prerađena hrana i šećer potiču rast proupalnih bakterija poput Bacteroides vulgatus i Bacteroides stercoris. Neravnoteža u mikrobiomu može pogoršati simptome hipertireoze i oštetiti funkciju štitnjače. Stoga je ključno smanjiti konzumaciju takve hrane. Umjesto toga, prehrana bi trebala biti svježa i uravnotežena, s naglaskom na voće, povrće i cjelovite žitarice kako bi se podržao mikrobiom i potaknuo rast protuupalnih bakterija.

Obratite pozornost na sljedeće točke:

- Izbjegavajte gotova jela i slatkiše, jer često sadrže velike količine aditiva, šećera, zaslađivača i rafiniranih ugljikohidrata.
- Posegnite za svježom, neprerađenom hranom. Umjesto tradicionalne hrane za doručak poput slatkih žitarica ili tosta, isprobajte pečeni slatki krumpir s avokadom i limetom ili tost s avokadom, jajetom i po želji malo čilija. Za probiotičku alternativu uživajte u (biljnom) jogurtu s orašastim plodovima, sjemenkama i cimetom.
- Pokušajte kuhati za sebe što je češće moguće i planirajte obroke unaprijed kako biste imali zdravu hranu dostupnu čak i tijekom radnog dana.

Smanjite konzumaciju alkohola

Alkohol može utjecati na ravnotežu crijevno-jetrene osi slabljenjem crijevne barijere i narušavanjem mikrobne ravnoteže u crijevima. To može potaknuti kolonizaciju nepoželjnih bakterija, što zauzvrat može opteretiti jetru. Smanjenje unosa alkohola - idealno na jedno ili dva pića tjedno ili potpuno izbjegavanje alkohola - pomaže u održavanju zdravog mikrobioma. To potiče rast korisnih bakterija, koje ne samo da podržavaju zdravlje crijeva već i prirodno ublažavaju opterećenje jetre.

Obratite pozornost na sljedeće točke:

- Odaberite bezalkoholne alternative. Sada postoji širok izbor bezalkoholnih vina i piva koja nude okus alkohola bez nuspojava.
- Isprobajte kombuchu: fermentirano piće s blagim udjelom alkohola, ali bez tipičnih negativnih učinaka alkohola. Ima osvježavajući okus i pomaže probavi.
- Uživajte u gaziranoj vodi s limunom, limetom, đumbirom, listovima mente ili malo voćnog soka: jednostavna, ali ukusna opcija. Pikantni osjećaj i voćni okus lako mogu zamijeniti "alkoholni trenutak".

Jogurt od borovnice i nara

Sastojci:
200 ml prirodnog jogurta ili biljne alternative
100 g svježih borovnica
½ svježeg nara, očišćenog od sjemenki
1 čajna žličica meda
50 g oraha, sjeckanih

Priprema:
1. Ulijte jogurt u zdjelu.
2. Rasporedite borovnice i sjemenke nara po jogurtu.
3. Prelijte med preko toga.
4. Pospite sjeckanim orasima.

Ovaj jogurt od borovnica i nara bogat je polifenolima koji potiču rast korisnih bakterija i tako mogu zaštititi vašu jetru.

Sažetak

Evo brzog pregleda načina za poboljšanje zdravlja crijeva:

- **Uključi fermentiranu hranu:** Fermentirana hrana pruža korisne probiotike koji podržavaju uravnotežen crijevni mikrobiom, smanjuju disbiozu i poboljšavaju probavu. Redovita konzumacija također jača imunitet i bori se protiv upala, promičući opće zdravlje jačanjem crijevne sluznice i diverzifikacijom crijevne flore.
- **Diverzificiraj prehranu:** Miješana prehrana koja uključuje i životinjske i biljne namirnice, posebno otporne škrobove, korisna je za zdravlje crijeva. Ovaj pristup podržava uravnotežen enterotip 3, poboljšavajući mikrobnu raznolikost i probavnu funkciju.
- **Povećaj unos vlakana:** Hrana bogata vlaknima hrani korisne bakterije, djelujući kao prebiotik za povećanje mikrobne raznolikosti, smanjenje disbioze i promicanje probavnog zdravlja. Raznolik unos vlakana poboljšava pravilnost crijeva i pomaže u sprječavanju crijevnih problema.
- **Prioritiziraj vitamine, antioksidanse i polifenole:** Dovoljan unos vitamina, antioksidansa i polifenola ključan je za održavanje crijevne barijere i podršku korisnim bakterijama poput A. muciniphila. Ovi hranjivi sastojci također štite živčane stanice i optimiziraju opskrbu mozga kisikom.
- **Upravljaj kroničnim stresom:** Kronični stres negativno utječe na zdravlje crijeva, pogoršavajući simptome poput nelagode i nadutosti. Primjena tehnika smanjenja stresa, poput mindfulnessa, može potaknuti skladno crijevno okruženje i bolju ravnotežu crijevnih bakterija.

- **Odluči se za pseudožitarice:** Pseudožitarice su prirodno bez glutena i bogate vlaknima, magnezijem, željezom i esencijalnim vitaminima. Služe kao hranjiva alternativa tradicionalnim žitaricama, često bolje podnošene od strane onih s osjetljivom probavom.
- **Uključi zdrave masti:** Zdrave masti, posebno omega-3, ključne su za smanjenje upale i podršku uravnoteženom crijevnom mikrobiomu. Održavaju integritet crijevne sluznice, poboljšavaju apsorpciju hranjivih tvari i potiču korisne crijevne bakterije.
- **Ograniči antibiotike:** Antibiotici mogu poremetiti crijevni mikrobiom eliminirajući i štetne i korisne bakterije, potencijalno potičući rast patogenih vrsta koje uzrokuju upale. Razgovaraj o upotrebi antibiotika sa svojim liječnikom.
- **Osiguraj dovoljan unos b vitamina:** Adekvatan unos B vitamina ključan je za podršku zdravlju crijeva i promicanje protuupalnih učinaka, pridonoseći ukupnom crijevnom i sistemskom blagostanju.
- **Održavaj redovit raspored spavanja:** Konzistentan ritam spavanja ključan je za optimalnu proizvodnju serotonina i opće blagostanje. Podržava uravnotežen crijevni mikrobiom i poboljšava komunikaciju osi crijeva-mozak, promičući regeneraciju tijela i smanjujući hormone stresa.
- **Razmotri povremeni post:** Povremeni post, s namjernim pauzama između obroka, može pozitivno utjecati na zdravlje crijeva dopuštajući korisnim bakterijama da se regeneriraju, poboljšavajući njihovu raznolikost i funkciju. To promiče crijevnu ravnotežu i opću vitalnost.
- **Povećaj unos vitamina c:** Vitamin C podržava proizvodnju neurotransmitera, poboljšavajući koncentraciju, i djeluje kao antioksidans, štiteći živčane stanice. Također pospješuje apsorpciju željeza, optimizirajući opskrbu mozga kisikom.
- **Uključi polifenole u svoju prehranu:** Polifenoli doprinose zdravlju osi crijeva-jetra promicanjem korisnih bakterija i poticanjem detoksikacije jetre. Njihova antioksidativna i protuupalna svojstva stabiliziraju crijevnu floru, potičući uravnotežen mikrobiom.
- **Izbjegavaj visoko prerađenu hranu i šećer:** Ova hrana potiče proupalne bakterije i može pogoršati probleme poput hipertireoze i narušiti funkciju štitnjače. Usredotočite se na svježe, uravnotežene obroke s voćem, povrćem i cjelovitim žitaricama kako biste podržali svoj mikrobiom.
- **Smanji konzumaciju alkohola:** Alkohol može oslabiti crijevnu barijeru i poremetiti mikrobnu ravnotežu, potencijalno potičući nepovoljne bakterije i opterećujući jetru. Ciljajte na minimalan ili nikakav unos alkohola kako biste podržali zdrav mikrobiom i funkciju jetre.

8. O nama

Poliklinika Breyer započela je s radom 1997. godine. Zahvaljujući suradnji odjela medicinske biokemije, mikrobiologije s parazitologijom, citologije i genetike, Poliklinika Breyer pruža vrhunsku uslugu širokog spektra pretraga. Već gotovo 30 godina, stručno i profesionalno osoblje kvalitetno, točno i precizno izrađuje nalaze te pacijentima jamči ljubaznost, diskreciju i brzinu. Svaki nivo usluga Poliklinike Breyer, od prijema do izdavanja nalaza, uvijek se usavršava i pod stalnom je kontrolom i validacijom vrhunskih stručnjaka, a rad medicinsko-biokemijskog laboratorija odgovara najvišem svjetskom standardu za analitički laboratorij - HRN ISO 15189. Analiza crijevnog mikrobioma provodi se u suradnji s austrijskom tvrtkom Biome Diagnostics (BiomeDx). Uzorak stolice analizira se metodom sekvenciranja sljedeće generacije (engl. *next generation sequencing*).

Napomena

Otkrivanje mikroorganizma ovim testom ne znači nužno prisutnost bolesti. Isto tako, neotkrivanje mikroorganizma ovim testom ne isključuje prisutnost mikroorganizma koji može uzrokovati bolest. Mogu biti prisutni i drugi mikroorganizmi koje ovaj test ne detektira. Ovaj test nije zamjena za utvrđene metode identifikacije mikroorganizama ili za određivanje njihovog profila osjetljivosti na antimikrobne lijekove.

Analizirani podaci ispituju se pomoću specifičnih algoritama za filogenetsku analizu kako bi se dobili precizni rezultati na temelju kojih se izrađuje vaše izvješće o mikrobiomu. Za to se koriste najnovija znanstvena saznanja, bioinformatička izvrsnost i algoritmi uz potporu umjetne inteligencije. Ovi algoritmi strojnog učenja koriste se, uz najviše standarde privatnosti i sigurnosti podataka, u poglavljima o zdravlju crijeva i interakciji crijevo–tijelo (isključujući upalne potencijale) kako bi se utvrdila sklonost profila mikrobioma uzorka prema profilima uzoraka osoba sa specifičnim obilježjima. Sažetak u poglavlju „Preporuke" izrađen je uz pomoć umjetne inteligencije.

Ne preuzimamo odgovornost za zdravstvene odluke donesene na temelju rezultata testa.

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